

**National Asthma Education and Prevention Program**  
**Expert Panel Report-3**  
**Bibliography**  
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- Aalbers R, Backer V, Kava TT, Omenaa ER, Sandstrom T, Jorup C, Welte T. Adjustable maintenance dosing with budesonide/formoterol compared with fixed-dose salmeterol/fluticasone in moderate to severe asthma. *Curr Med Res Opin* 2004;20(2):225–240.
- Aalto AM, Harkapaa K, Aro AR, Rissanen P. Ways of coping with asthma in everyday life: validation of the Asthma Specific Coping Scale. *J Psychosom Res* 2002;53(6):1061–1069.
- Aaron SD, Dales RE, Pham B. Management of steroid-dependent asthma with methotrexate: a meta-analysis of randomized clinical trials. *Respir Med* 1998;92(8):1059–1065.
- Aaron SD, Fergusson D, Dent R, Chen Y, Vandemheen KL, Dales RE. Effect of weight reduction on respiratory function and airway reactivity in obese women. *Chest* 2004;125(6):2046–2052.
- Abadoglu O, Mungan D, Pasaoglu G, Celik G, Misirligil Z. Influenza vaccination in patients with asthma: effect on the frequency of upper respiratory tract infections and exacerbations. *J Asthma* 2004;41(3):279–283.
- Abd-Allah SA, Rogers MS, Terry M, Gross M, Perkin RM. Helium-oxygen therapy for pediatric acute severe asthma requiring mechanical ventilation. *Pediatr Crit Care Med* 2003;4(3):353–357.
- Abdulwadud O, Abramson M, Forbes A, James A, Walters EH. Evaluation of a randomised controlled trial of adult asthma education in a hospital setting. *Thorax* 1999;54(6):493–500.
- Abdulwadud OA, Abramson MJ, Forbes AB, Walters EH. The relationships between patients' related variables in asthma: implications for asthma management. *Respirology* 2001;6(2):105–112.
- Abisheganaden J, Ng SB, Lam KN, Lim TK. Peak expiratory flow rate guided protocol did not improve outcome in emergency room asthma. *Singapore Med J* 1998;39(11):479–484.
- Abisheganaden J, Chee CB, Goh SK, Yeo LS, Prabhakaran L, Earnest A, Wang YT. Impact of an asthma carepath on the management of acute asthma exacerbations. *Ann Acad Med Singapore* 2001;30(4 Suppl):22–26.
- Abramson MJ, Bailey MJ, Couper FJ, Driver JS, Drummer OH, Forbes AB, McNeil JJ, Haydn WE. Are asthma medications and management related to deaths from asthma? *Am J Respir Crit Care Med* 2001;163(1):12–18.
- Abramson MJ, Bailey MJ, Forbes AB, Walters EH. How well do doctors know their patients with severe asthma? *Intern Med J* 2003;33(12):557–565.

Abramson MJ, Puy RM, Weiner JM. Allergen immunotherapy for asthma. *Cochrane Database Syst Rev* 2003;(4):CD001186.

Abu-Ekteish FM, Zahraa JN, Al Mobaireek KF, Nasir AA, Al Frayh AS. The management of acute severe asthma in a pediatric intensive care unit. *Saudi Med J* 2003;24(4):388–390.

Abu-Hasan M, Tannous B, Weinberger M. Exercise-induced dyspnea in children and adolescents: if not asthma then what? *Ann Allergy Asthma Immunol* 2005;94(3):366–371.

Abulhosn RS, Morray BH, Llewellyn CE, Redding GJ. Passive smoke exposure impairs recovery after hospitalization for acute asthma. *Arch Pediatr Adolesc Med* 1997;151(2):135–139.

Adams N, Bestall J, Jones P. Inhaled beclomethasone at different doses for long-term asthma. *Cochrane Database Syst Rev* 2001;(1):CD002879.

Adams N, Bestall JM, Lasserson TJ, Jones PW. Inhaled fluticasone versus inhaled beclomethasone or inhaled budesonide for chronic asthma in adults and children. *Cochrane Database Syst Rev* 2005;(2):CD002310.

Adams RJ, Smith BJ, Ruffin RE. Factors associated with hospital admissions and repeat emergency department visits for adults with asthma. *Thorax* 2000;55(7):566–573.

Adams RJ, Boath K, Homan S, Campbell DA, Ruffin RE. A randomized trial of peak-flow and symptom-based action plans in adults with moderate-to-severe asthma. *Respirology* 2001;6(4):297–304.

Adams RJ, Smith BJ, Ruffin RE. Impact of the physician's participatory style in asthma outcomes and patient satisfaction. *Ann Allergy Asthma Immunol* 2001;86(3):263–271.

Adams RJ, Fuhlbrigge A, Finkelstein JA, Lozano P, Livingston JM, Weiss KB, Weiss ST. Impact of inhaled antiinflammatory therapy on hospitalization and emergency department visits for children with asthma. *Pediatrics* 2001;107(4):706–711.

Adams RJ, Fuhlbrigge AL, Finkelstein JA, Weiss ST. Intranasal steroids and the risk of emergency department visits for asthma. *J Allergy Clin Immunol* 2002;109(4):636–642.

Adams RJ, Weiss ST, Fuhlbrigge A. How and by whom care is delivered influences anti-inflammatory use in asthma: results of a national population survey. *J Allergy Clin Immunol* 2003;112(2):445–450.

Adams RJ, Wilson DH, Taylor AW, Daly A, Tursan dE, Dal GE, Ruffin RE. Coexistent chronic conditions and asthma quality of life: a population-based study. *Chest* 2006;129(2):285–291.

Adoun M, Frat JP, Dore P, Rouffineau J, Godet C, Robert R. Comparison of nebulized epinephrine and terbutaline in patients with acute severe asthma: a controlled trial. *J Crit Care* 2004;19(2):99–102.

Afessa B, Morales I, Cury JD. Clinical course and outcome of patients admitted to an ICU for status asthmaticus. *Chest* 2001;120(5):1616–1621.

Agabiti N, Mallone S, Forastiere F, Corbo GM, Ferro S, Renzoni E, Sestini P, Rusconi F, Ciccone G, Viegi G, et al. The impact of parental smoking on asthma and wheezing. SIDRIA Collaborative Group. Studi Italiani sui Disturbi Respiratori nell'Infanzia e l'Ambiente. *Epidemiology* 1999;10(6):692–698.

Agarwal AK, Shah A. Menstrual-linked asthma. *J Asthma* 1997;34(6):539–545.

Agertoft L, Pedersen S. Importance of training for correct Turbuhaler use in preschool children. *Acta Paediatr* 1998;87(8):842–847.

Ahmed T, Iskandrani A, Uddin MN. Sodium bicarbonate solution nebulization in the treatment of acute severe asthma. *Am J Ther* 2000;7(5):325–327.

Akerman MJ, Sinert R. A successful effort to improve asthma care outcome in an inner-city emergency department. *J Asthma* 1999;36(3):295–303.

Akerman MJ, Calacanis CM, Madsen MK. Relationship between asthma severity and obesity. *J Asthma* 2004;41(5):521–526.

Akinbami LJ, Schoendorf KC. Trends in childhood asthma: prevalence, health care utilization, and mortality. *Pediatrics* 2002;110(2 Pt 1):315–322.

Al Dawood KM. Risk factors associated with hospital emergency visits among asthmatic schoolboys in Saudi Arabia. *East Mediterr Health J* 2002;8(1):31–41.

Al Delaimy WK, Hay SM, Gain KR, Jones DT, Crane J. The effects of carbon dioxide on exercise-induced asthma: an unlikely explanation for the effects of Buteyko breathing training. *Med J Aust* 2001;174(2):72–74.

Alcock SM, Mamun M, Prescott RJ, Connolly CK. Symptoms and pulmonary function in asthma. *Respir Med* 1998;92(6):849–857.

Aldridge RE, Hancox RJ, Cowart JO, Frampton CM, Town GI, Taylor DR. Eosinophils and eosinophilic cationic protein in induced sputum and blood: effects of budesonide and terbutaline treatment. *Ann Allergy Asthma Immunol* 2002;89(5):492–497.

Alemi F, Neuhauser D. Time-between control charts for monitoring asthma attacks. *Jt Comm J Qual Saf* 2004;30(2):95–102.

Alexander J, Divin-Cosgrove C, Faner ML, O'Connell M. Increasing the knowledge base of asthmatics and their families through asthma clubs along the southwest border. *J Am Acad Nurse Pract* 2000;12(7):260–266.

Alicea E, Casal J, Nazario S, Rodriguez W. Asthma knowledge among internal medicine residents. *P R Health Sci J* 1999;18(1):19–21.

Allen-Ramey FC, Duong PT, Goodman DC, Sajjan SG, Nelsen LM, Santanello NC, Markson LE. Treatment effectiveness of inhaled corticosteroids and leukotriene modifiers for patients with asthma: an analysis from managed care data. *Allergy Asthma Proc* 2003;24(1):43–51.

Allen RM, Jones MP, Oldenburg B. Randomised trial of an asthma self-management programme for adults. *Thorax* 1995;50(7):731–738.

Allen SC, Jain M, Ragab S, Malik N. Acquisition and short-term retention of inhaler techniques require intact executive function in elderly subjects. *Age Ageing* 2003;32(3):299–302.

Almqvist C, Wickman M, Perfetti L, Berglind N, Renstrom A, Hedren M, Larsson K, Hedlin G, Malmberg P. Worsening of asthma in children allergic to cats, after indirect exposure to cat at school. *Am J Respir Crit Care Med* 2001;163(3 Pt 1):694–698.

Altman LC, Munk Z, Seltzer J, Noonan N, Shingo S, Zhang J, Reiss TF. A placebo-controlled, dose-ranging study of montelukast, a cysteinyl leukotriene-receptor antagonist. Montelukast Asthma Study Group. *J Allergy Clin Immunol* 1998;102(1):50–56.

Alvey SD. Asthma emergency care: national guidelines summary. *Heart Lung* 2001;30(6):472–474.

Amayasu H, Yoshida S, Ebana S, Yamamoto Y, Nishikawa T, Shoji T, Nakagawa H, Hasegawa H, Nakabayashi M, Ishizaki Y. Clarithromycin suppresses bronchial hyperresponsiveness associated with eosinophilic inflammation in patients with asthma. *Ann Allergy Asthma Immunol* 2000;84(6):594–598.

Amayasu H, Nakabayashi M, Akahori K, Ishizaki Y, Shoji T, Nakagawa H, Hasegawa H, Yoshida S. Cromolyn sodium suppresses eosinophilic inflammation in patients with aspirin-intolerant asthma. *Ann Allergy Asthma Immunol* 2001;87(2):146–150.

American Lung Association Asthma Clinical Research Centers. The safety of inactivated influenza vaccine in adults and children with asthma. *N Engl J Med* 2001;345(21):1529–1536.

Amirav I, Newhouse MT. Metered-dose inhaler accessory devices in acute asthma: efficacy and comparison with nebulizers: a literature review. *Arch Pediatr Adolesc Med* 1997;151(9):876–882.

Amirav I, Tiosano T, Chamny S, Chirurg S, Oren S, Grossman Z, Kahan E, Newhouse MT, Mansour Y. Comparison of efficiency and preference of metal and plastic spacers in preschool children. *Ann Allergy Asthma Immunol* 2004;93(3):249–252.

Anbar RD. Hypnosis in pediatrics: applications at a pediatric pulmonary center. *BMC Pediatr* 2002;2(1):11.

Anbar RD. Self-hypnosis for anxiety associated with severe asthma: a case report. *BMC Pediatr* 2003;3(1):7.

Anbar RD, Hall HR. Childhood habit cough treated with self-hypnosis. *J Pediatr* 2004;144(2):213–217.

Anderson HR, Ponce dL, Bland JM, Bower JS, Emberlin J, Strachan DP. Air pollution, pollens, and daily admissions for asthma in London 1987–92. *Thorax* 1998;53(10):842–848.

Anderson HR, Ayres JG, Sturdy PM, Bland JM, Butland BK, Peckitt C, Taylor JC, Victor CR. Bronchodilator treatment and deaths from asthma: case-control study. *BMJ* 2005;330(7483):117. Epub December 2004.

Anderson ME, Freas MR, Wallace AS, Kempe A, Gelfand EW, Liu AH. Successful school-based intervention for inner-city children with persistent asthma. *J Asthma* 2004;41(4):445–453.

Anderson RC, Anderson JH. Acute respiratory effects of diaper emissions. *Arch Environ Health* 1999;54(5):353–358.

Anderson SD, Brannan JD. Long-acting beta<sub>2</sub>-adrenoceptor agonists and exercise-induced asthma: lessons to guide us in the future. *Paediatr Drugs* 2004;6(3):161–175.

Anderson W, Prescott GJ, Packham S, Mullins J, Brookes M, Seaton A. Asthma admissions and thunderstorms: a study of pollen, fungal spores, rainfall, and ozone. *QJM* 2001;94(8):429–433.

Andersson F, Kjellman M, Forsberg G, Moller C, Arheden L. Comparison of the cost-effectiveness of budesonide and sodium cromoglycate in the management of childhood asthma in everyday clinical practice. *Ann Allergy Asthma Immunol* 2001;86(5):537–544.

Andersson F, Borg S, Stahl E. The impact of exacerbations on the asthmatic patient's preference scores. *J Asthma* 2003;40(6):615–623.

Andrews L, Lokuge S, Sawyer M, Lillywhite L, Kennedy D, Martin J. The use of alternative therapies by children with asthma: a brief report. *J Paediatr Child Health* 1998;34(2):131–134.

Anhoj J, Bisgaard AM, Bisgaard H. Systemic activity of inhaled steroids in 1- to 3-year-old children with asthma. *Pediatrics* 2002;109(3):E40.

Ankerst J, Persson G, Weibull E. Tolerability of a high dose of budesonide/formoterol in a single inhaler in patients with asthma. *Pulm Pharmacol Ther* 2003;16(3):147–151.

Annett RD, Bender BG, Lapidus J, Duhamel TR, Lincoln A. Predicting children's quality of life in an asthma clinical trial: what do children's reports tell us? *J Pediatr* 2001;139(6):854–861.

Antonicelli L, Bucca C, Neri M, De Benedetto F, Sabbatani P, Bonifazi F, Eichler HG, Zhang Q, Yin DD. Asthma severity and medical resource utilisation. *Eur Respir J* 2004;23(5):723–729.

Anzueto A, Frutos-Vivar F, Esteban A, Alia I, Brochard L, Stewart T, Benito S, Tobin MJ, Elizalde J, Palizas F, et al. Incidence, risk factors and outcome of barotrauma in mechanically ventilated patients. *Intensive Care Med* 2004;30(4):612–619.

Apostol GG, Jacobs DR Jr, Tsai AW, Crow RS, Williams OD, Townsend MC, Beckett WS. Early life factors contribute to the decrease in lung function between ages 18 and 40: the Coronary Artery Risk Development in Young Adults study. *Am J Respir Crit Care Med* 2002;166(2):166–172.

Appleton SL, Adams RJ, Wilson DH, Taylor AW, Ruffin RE. Spirometric criteria for asthma: adding further evidence to the debate. *J Allergy Clin Immunol* 2005;116(5):976–982.

Apter AJ, Reisine ST, Kennedy DG, Cromley EK, Keener J, ZuWallack RL. Demographic predictors of asthma treatment site: outpatient, inpatient, or emergency department. *Ann Allergy Asthma Immunol* 1997;79(4):353–361.

Apter AJ, Reisine ST, Affleck G, Barrows E, ZuWallack RL. Adherence with twice-daily dosing of inhaled steroids. Socioeconomic and health-belief differences. *Am J Respir Crit Care Med* 1998;157(6 Pt 1):1810–1817.

Apter AJ, Boston RC, George M, Norfleet AL, Tenhave T, Coyne JC, Birck K, Reisine ST, Cucchiara AJ, Feldman HI. Modifiable barriers to adherence to inhaled steroids among adults with asthma: it's not just black and white. *J Allergy Clin Immunol* 2003;111(6):1219–1226.

Arbes SJ Jr, Cohn RD, Yin M, Muilenberg ML, Burge HA, Friedman W, Zeldin DC. House dust mite allergen in US beds: results from the First National Survey of Lead and Allergens in Housing. *J Allergy Clin Immunol* 2003;111(2):408–414.

Archer GJ, Hoyle JL, McCluskey A, Macdonald J. Inspiratory vocal cord dysfunction, a new approach in treatment. *Eur Respir J* 2000;15(3):617–618.

Armishaw J, Grant CC. Use of complementary treatment by those hospitalised with acute illness. *Arch Dis Child* 1999;81(2):133–137.

Armstrong EP, Malone DC. Fluticasone is associated with lower asthma-related costs than leukotriene modifiers in a real-world analysis. *Pharmacotherapy* 2002;22(9):1117–1123.

Aroni R, Goeman D, Stewart K, Thien F, Sawyer S, Abramson M, Douglass J. Enhancing validity: what counts as an asthma attack? *J Asthma* 2004;41(7):729–737.

Arshad SH, Bojarskas J, Tsitoura S, Matthews S, Mealy B, Dean T, Karmaus W, Frischer T, Kuehr J, Forster J. Prevention of sensitization to house dust mite by allergen avoidance in school age children: a randomized controlled study. *Clin Exp Allergy* 2002;32(6):843–849.

Arshad SH, Bateman B, Matthews SM. Primary prevention of asthma and atopy during childhood by allergen avoidance in infancy: a randomised controlled study. *Thorax* 2003;58(6):489–493.

Arvidsson P, Mellen A, Palmqvist M, Lotvall J. Equivalent therapeutic ratio of salbutamol given by Turbuhaler and Diskus. *Respir Med* 2000;94(6):574–577.

Asmus MJ, Hendeles L. Levalbuterol nebulizer solution: is it worth five times the cost of albuterol? *Pharmacotherapy* 2000;20(2):123–129.

Ather S, Chung KD, Gregory P, Demissie K. The association between hospital readmission and insurance provider among adults with asthma. *J Asthma* 2004;41(7):709–713.

Atkinson RW, Anderson HR, Strachan DP, Bland JM, Bremner SA, Ponce de Leon A. Short-term associations between outdoor air pollution and visits to accident and emergency departments in London for respiratory complaints. *Eur Respir J* 1999;13(2):257–265.

Atkinson RW, Anderson HR, Sunyer J, Ayres J, Baccini M, Vonk JM, Boumghar A, Forastiere F, Forsberg B, Touloumi G, et al. Acute effects of particulate air pollution on respiratory

admissions: results from APHEA 2 project. Air Pollution and Health: a European Approach. *Am J Respir Crit Care Med* 2001;164(10 Pt 1):1860–1866.

Aubier M, Wettenger R, Gans SJ. Efficacy of HFA-beclomethasone dipropionate extra-fine aerosol (800 microg day(-1)) versus HFA-fluticasone propionate (1000 microg day(-1)) in patients with asthma. *Respir Med* 2001;95(3):212–220.

Austin JB, Russell G. Wheeze, cough, atopy, and indoor environment in the Scottish Highlands. *Arch Dis Child* 1997;76(1):22–26.

Avidan B, Sonnenberg A, Schnell TG, Sontag SJ. Temporal associations between coughing or wheezing and acid reflux in asthmatics. *Gut* 2001;49(6):767–772.

Avila-Castanon L, Casas-Becerra B, Rio-Navarro BE, Velazquez-Armenta Y, Sienra-Monge JJ. Formoterol vs. albuterol administered via Turbuhaler system in the emergency treatment of acute asthma in children. *Allergol Immunopathol (Madr)* 2004;32(1):18–20.

Avital A, Godfrey S, Springer C. Exercise, methacholine, and adenosine 5'-monophosphate challenges in children with asthma: relation to severity of the disease. *Pediatr Pulmonol* 2000;30(3):207–214.

Awadh BN, Grunfeld A, FitzGerald JM. Health care costs associated with acute asthma: a prospective economic analysis. *Can Respir J* 1999;6(6):521–525.

Awadh N, Muller NL, Park CS, Abboud RT, FitzGerald JM. Airway wall thickness in patients with near fatal asthma and control groups: assessment with high resolution computed tomographic scanning. *Thorax* 1998;53(4):248–253.

Ayres JG, Millar AB, Sykes AP. Clinical efficacy and safety of fluticasone propionate 1 mg twice daily administered via a HFA 134a pressurized metered dose inhaler to patients with severe asthma. U.K. study group. *Respir Med* 2000;94 Suppl B:S42–S50.

Ayres JG, Higgins B, Chilvers ER, Ayre G, Blogg M, Fox H. Efficacy and tolerability of anti-immunoglobulin E therapy with omalizumab in patients with poorly controlled (moderate-to-severe) allergic asthma. *Allergy* 2004;59(7):701–708.

Ayres JG, Jyothish D, Ninan T. Brittle asthma. *Paediatr Respir Rev* 2004;5(1):40–44. Review.

Aziz I, Lipworth BJ. A bolus of inhaled budesonide rapidly reverses airway subsensitivity and beta<sub>2</sub>-adrenoceptor down-regulation after regular inhaled formoterol. *Chest* 1999;115(3):623–628.

Aziz I, Wilson AM, Lipworth BJ. Effects of once-daily formoterol and budesonide given alone or in combination on surrogate inflammatory markers in asthmatic adults. *Chest* 2000;118(4):1049–1058.

Baba K, Hattori T, Koishikawa I, Yoshida K, Kobayashi T, Takagi K. Serum eosinophil cationic protein for predicting the prognosis of a step-down in inhaled corticosteroid therapy in adult chronic asthmatics. *J Asthma* 2000;37(5):399–408.

Baba K, Sakakibara A, Yagi T, Niwa S, Hattori T, Koishikawa I, Yoshida K, Kobayashi T, Takagi K. Effects of theophylline withdrawal in well-controlled asthmatics treated with inhaled corticosteroid. *J Asthma* 2001;38(8):615–624.

Baba K, Sakakibara A, Yagi T, Niwa S, Wakayama H, Takagi K. Long-term observations of the clinical course after step down of corticosteroid inhalation therapy in adult chronic asthmatics: correlation with serum levels of eosinophil cationic protein. *Respirology* 2002;7(3):255–266.

Bacharier LB, Dawson C, Bloomberg GR, Bender B, Wilson L, Strunk RC. Hospitalization for asthma: atopic, pulmonary function, and psychological correlates among participants in the Childhood Asthma Management Program. *Pediatrics* 2003;112(2):e85–e92.

Bacharier LB, Strunk RC, Mauger D, White D, Lemanske RF Jr, Sorkness CA. Classifying asthma severity in children: mismatch between symptoms, medication use, and lung function. *Am J Respir Crit Care Med* 2004;170(4):426–432.

Bag R, Bandi V, Fromm RE Jr, Guntupalli KK. The effect of heliox-driven bronchodilator aerosol therapy on pulmonary function tests in patients with asthma. *J Asthma* 2002;39(7):659–665.

Bagnato GF. Tolerability of doxofylline in the maintenance therapy of pediatric patients with bronchial asthma. *Eur Rev Med Pharmacol Sci* 1999;3(6):255–260.

Bahceciler NN, Barlan IB, Nuhoglu Y, Basaran MM. Parental smoking behavior and the urinary cotinine levels of asthmatic children. *J Asthma* 1999;36(2):171–175.

Bahceciler NN, Barlan IB, Nuhoglu Y, Basaran MM. Risk factors for the persistence of respiratory symptoms in childhood asthma. *Ann Allergy Asthma Immunol* 2001;86(4):449–455.

Bahceciler NN, Arikan C, Akkoc T, Barlan IB. Predictors for the severity of bronchial hyperreactivity in childhood asthma. *Am J Respir Crit Care Med* 2001;164(7):1150–1153.

Bahceciler NN, Barlan IB, Nuhoglu Y, Basaran MM. Which factors predict success after discontinuation of inhaled budesonide therapy in children with asthma? *J Asthma* 2002;39(1):37–46.

Bahir A, Goldberg A, Mekori YA, Confino-Cohen R, Morag H, Rosen Y, Monakir D, Rigler S, Cohen AH, Horev Z, et al. Continuous avoidance measures with or without acaricide in dust mite-allergic asthmatic children. *Ann Allergy Asthma Immunol* 1997;78(5):506–512.

Bahrainwala AH, Simon MR, Harrison DD, Toder D, Secord EA. Atypical expiratory flow volume curve in an asthmatic patient with vocal cord dysfunction. *Ann Allergy Asthma Immunol* 2001;86(4):439–443.

Baigel G. Volatile agents to avoid ventilating asthmatics. *Anaesth Intensive Care* 2003;31(2):208–210.

Bailey R, Weingarten S, Lewis M, Mohsenifar Z. Impact of clinical pathways and practice guidelines on the management of acute exacerbations of bronchial asthma. *Chest* 1998;113(1):28–33.

Bailey WC, Kohler CL, Richards JM Jr, Windsor RA, Brooks CM, Gerald LB, Martin B, Higgins DM, Liu T. Asthma self-management: do patient education programs always have an impact? *Arch Intern Med* 1999;159(20):2422–2428.

Baker R, Fraser RC, Stone M, Lambert P, Stevenson K, Shiels C. Randomised controlled trial of the impact of guidelines, prioritized review criteria and feedback on implementation of recommendations for angina and asthma. *Br J Gen Pract* 2003;53(489):284–291.

Balkrishnan R, Christensen DB. Inhaled corticosteroid use and associated outcomes in elderly patients with moderate to severe chronic pulmonary disease. *Clin Ther* 2000;22(4):452–469.

Balkrishnan R, Anderson RT, Bowton D. Self-reported health status predictors of healthcare services utilization and charges in elderly asthmatic patients. *J Asthma* 2000;37(5):415–423.

Balkrishnan R, Christensen DB, Bowton DL. Self-reported health status, prophylactic medication use, and healthcare costs in older adults with asthma. *J Am Geriatr Soc* 2002;50(5):924–929.

Balon JW, Mior SA. Chiropractic care in asthma and allergy. *Ann Allergy Asthma Immunol* 2004;93(2 Suppl 1):S55–S60.

Balter MS, Adams SG, Chapman KR. Inhaled beclomethasone dipropionate improves acoustic measures of voice in patients with asthma. *Chest* 2001;120(6):1829–1834.

Balzano G, Battiloro R, Biraghi M, Stefanelli F, Fuschillo S, Gaudiosi C, De Angelis E. Effectiveness and acceptability of a domiciliary multidrug inhalation treatment in elderly patients with chronic airflow obstruction: metered dose inhaler versus jet nebulizer. *J Aerosol Med* 2000;13(1):25–33.

Banov C, Howland WC III, Lumry WR, Parasuraman B, Uryniak T, Liljas B. Budesonide turbuhaler delivered once daily improves health-related quality of life in adult patients with non-steroid-dependent asthma. *Allergy Asthma Proc* 2003;24(2):129–136.

Baptist AP, Baldwin JL. Physician attitudes, opinions, and referral patterns: comparisons of those who have and have not taken an allergy/immunology rotation. *Ann Allergy Asthma Immunol* 2004;93(3):227–231.

Baraldi E, Azzolin NM, Zanconato S, Dario C, Zacchello F. Corticosteroids decrease exhaled nitric oxide in children with acute asthma. *J Pediatr* 1997;131(3):381–385.

Barbanel D, Eldridge S, Griffiths C. Can a self-management programme delivered by a community pharmacist improve asthma control? A randomised trial. *Thorax* 2003;58(10):851–854.

Barben JU, Roberts M, Robertson CF. Effect of detergent-coated versus non-coated spacers on bronchodilator response in children with asthma. *J Paediatr Child Health* 2003;39(4):270–273.

Barboni E, Peratoner A, Rocco PL, Sabadini P. Near fatal asthma and psychopathological characteristics: a group-control study. *Monaldi Arch Chest Dis* 1997;52(4):339–342.

Barck C, Lundahl J, Hallden G, Bylin G. Total eosinophil cationic protein levels in induced sputum as a marker of changes in eosinophilic inflammation in a patient with allergic asthma. *Ann Allergy Asthma Immunol* 2005;95(1):86–92.

Baren JM, Shofer FS, Ivey B, Reinhard S, DeGeus J, Stahmer SA, Panettieri R, Hollander JE. A randomized, controlled trial of a simple emergency department intervention to improve the rate of primary care follow-up for patients with acute asthma exacerbations. *Ann Emerg Med* 2001;38(2):115–122.

Baren JM, Zorc JJ. Contemporary approach to the emergency department management of pediatric asthma. *Emerg Med Clin North Am* 2002;20(1):115–138.

Baren JM, Boudreaux ED, Brenner BE, Cydulka RK, Rowe BH, Clark S, Camargo CA Jr. Randomized controlled trial of emergency department interventions to improve primary care follow-up for patients with acute asthma. *Chest* 2006;129(2):257–265.

Barnes N, Wei LX, Reiss TF, Leff JA, Shingo S, Yu C, Edelman JM. Analysis of montelukast in mild persistent asthmatic patients with near-normal lung function. *Respir Med* 2001;95(5):379–386.

Barnes NC, Miller CJ. Effect of leukotriene receptor antagonist therapy on the risk of asthma exacerbations in patients with mild to moderate asthma: an integrated analysis of zafirlukast trials. *Thorax* 2000;55(6):478–483.

Barr RG, Woodruff PG, Clark S, Camargo CA Jr. Sudden-onset asthma exacerbations: clinical features, response to therapy, and 2-week follow-up. Multicenter Airway Research Collaboration (MARC) investigators. *Eur Respir J* 2000;15(2):266–273.

Barr RG, Cooper DM, Speizer FE, Drazen JM, Camargo CA Jr. Beta(2)-adrenoceptor polymorphism and body mass index are associated with adult-onset asthma in sedentary but not active women. *Chest* 2001;120(5):1474–1479.

Barr RG, Somers SC, Speizer FE, Camargo CA Jr. Patient factors and medication guideline adherence among older women with asthma. *Arch Intern Med* 2002;162(15):1761–1768.

Barr RG, Wentowski CC, Grodstein F, Somers SC, Stampfer MJ, Schwartz J, Speizer FE, Camargo CA Jr. Prospective study of postmenopausal hormone use and newly diagnosed asthma and chronic obstructive pulmonary disease. *Arch Intern Med* 2004;164(4):379–386.

Barr RG, Wentowski CC, Curhan GC, Somers SC, Stampfer MJ, Schwartz J, Speizer FE, Camargo CA Jr. Prospective study of acetaminophen use and newly diagnosed asthma among women. *Am J Respir Crit Care Med* 2004;169(7):836–841.

Bartholomew LK, Gold RS, Parcel GS, Czyzewski DI, Sockrider MM, Fernandez M, Sheogog R, Swank P. Watch, Discover, Think, and Act: evaluation of computer-assisted instruction to improve asthma self-management in inner-city children. *Patient Educ Couns* 2000;39(2–3):269–280.

Bartlett SJ, Kolodner K, Butz AM, Eggleston P, Malveaux FJ, Rand CS. Maternal depressive symptoms and emergency department use among inner-city children with asthma. *Arch Pediatr Adolesc Med* 2001;155(3):347–353.

Bartlett SJ, Krishnan JA, Riekert KA, Butz AM, Malveaux FJ, Rand CS. Maternal depressive symptoms and adherence to therapy in inner-city children with asthma. *Pediatrics* 2004;113(2):229–237.

Bartoli ML, Bacci E, Carnevali S, Cianchetti S, Dente FL, Di Franco A, Giannini D, Taccola M, Vagaggini B, Paggiaro PL. Clinical assessment of asthma severity partially corresponds to sputum eosinophilic airway inflammation. *Respir Med* 2004;98(2):184–193.

Basheti IA, Reddel HK, Armour CL, Bosnic-Anticevich SZ. Counseling about turbuhaler technique: needs assessment and effective strategies for community pharmacists. *Respir Care* 2005;50(5):617–623.

Bateman ED, Silins V, Bogolubov M. Clinical equivalence of salmeterol/fluticasone propionate in combination (50/100 microg twice daily) when administered via a chlorofluorocarbon-free metered dose inhaler or dry powder inhaler to patients with mild-to-moderate asthma. *Respir Med* 2001;95(2):136–146.

Bateman ED, Bantje TA, Joao GM, Toumbis MG, Huber RM, Naya I, Eliraz A. Combination therapy with single inhaler budesonide/formoterol compared with high dose of fluticasone propionate alone in patients with moderate persistent asthma. *Am J Respir Med* 2003;2(3):275–281.

Bateman ED, Boushey HA, Bousquet J, Busse WW, Clark TJ, Pauwels RA, Pedersen SE. Can guideline-defined asthma control be achieved? The Gaining Optimal Asthma Control study. *Am J Respir Crit Care Med* 2004;170(8):836–844.

Batra V, Sethi GR, Sachdev HP. Comparative efficacy of jet nebulizer and metered dose inhaler with spacer device in the treatment of acute asthma. *Indian Pediatr* 1997;34(6):497–503.

Battleman DS, Callahan MA, Silber S, Munoz CI, Santiago L, Abularage J, Jabbar H. Dedicated asthma center improves the quality of care and resource utilization for pediatric asthma: a multicenter study. *Acad Emerg Med* 2001;8(7):709–715.

Bauman A, McKenzie DK, Young L, Yoon R. Asthma education: the perceptions of family physicians. *J Asthma* 1990;27(6):385–392.

Baumgartner RA, Martinez G, Edelman JM, Rodriguez Gomez GG, Bernstein M, Bird S, Angner R, Polis A, Dass SB, Lu S, et al. Distribution of therapeutic response in asthma control between oral montelukast and inhaled beclomethasone. *Eur Respir J* 2003;21(1):123–128.

Bavbek S, Celik G, Demirel YS, Misirligil Z. Risk factors associated with hospitalizations for asthma attacks in Turkey. *Allergy Asthma Proc* 2003;24(6):437–442.

Baxter-Jones AD, Helms PJ. Early introduction of inhaled steroids in wheezing children presenting in primary care. A pilot study. EASE Study Group. *Clin Exp Allergy* 2000;30(11):1618–1626.

Bayliss MS, Espindle DM, Buchner D, Blaiss MS, Ware JE. A new tool for monitoring asthma outcomes: the ITG Asthma Short Form. *Qual Life Res* 2000;9(4):451–466.

- Bayona M, Montealegre F, Gomes de Andrade V, Trevino F. Prognostic factors of severe asthma in Puerto Rico. *P R Health Sci J* 2002;21(3):213–219.
- Beamon S, Falkenbach A, Fainburg G, Linde K. Speleotherapy for asthma. *Cochrane Database Syst Rev* 2001;(2):CD001741.
- Bearison DJ, Minian N, Granowetter L. Medical management of asthma and folk medicine in a Hispanic community. *J Pediatr Psychol* 2002;27(4):385–392.
- Becker A. Leukotriene receptor antagonists: efficacy and safety in children with asthma. *Pediatr Pulmonol* 2000;30(2):183–186.
- Becker A, Watson W, Ferguson A, Dimich-Ward H, Chan-Yeung M. The Canadian asthma primary prevention study: outcomes at 2 years of age. *J Allergy Clin Immunol* 2004;113(4):650–656.
- Becker JM, Arora A, Scarfone RJ, Spector ND, Fontana-Penn ME, Gracely E, Joffe MD, Goldsmith DP, Malatack JJ. Oral versus intravenous corticosteroids in children hospitalized with asthma. *J Allergy Clin Immunol* 1999;103(4):586–590.
- Beckett WS, Jacobs DR Jr, Yu X, Iribarren C, Williams OD. Asthma is associated with weight gain in females but not males, independent of physical activity. *Am J Respir Crit Care Med* 2001;164(11):2045–2050.
- Beckham S, Kaahaaina D, Voloch KA, Washburn A. A community-based asthma management program: effects on resource utilization and quality of life. *Hawaii Med J* 2004;63(4):121–126.
- Beeh KM, Ksoll M, Buhl R. Elevation of total serum immunoglobulin E is associated with asthma in nonallergic individuals. *Eur Respir J* 2000;16(4):609–614.
- Beeh KM, Micke P, Ksoll M, Buhl R. Cigarette smoking, but not sensitization to Alternaria, is associated with severe asthma in urban patients. *J Asthma* 2001;38(1):41–49.
- Behbehani NA, Al Mane F, D'yachkova Y, Pare P, FitzGerald JM. Myopathy following mechanical ventilation for acute severe asthma: the role of muscle relaxants and corticosteroids. *Chest* 1999;115(6):1627–1631.
- Beilby JJ, Wakefield MA, Ruffin RE. Reported use of asthma management plans in South Australia. *Med J Aust* 1997;166(6):298–301.
- Belamarich PF, Luder E, Kattan M, Mitchell H, Islam S, Lynn H, Crain EF. Do obese inner-city children with asthma have more symptoms than nonobese children with asthma? *Pediatrics* 2000;106(6):1436–1441.
- Belanger K, Beckett W, Triche E, Bracken MB, Holford T, Ren P, McSharry JE, Gold DR, Platts-Mills TA, Leaderer BP. Symptoms of wheeze and persistent cough in the first year of life: associations with indoor allergens, air contaminants, and maternal history of asthma. *Am J Epidemiol* 2003;158(3):195–202.

- Belda J, Giner J, Casan P, Sanchis J. Mild exacerbations and eosinophilic inflammation in patients with stable, well-controlled asthma after 1 year of follow-up. *Chest* 2001;119(4):1011–1017.
- Belessis Y, Dixon S, Thomsen A, Duffy B, Rawlinson W, Henry R, Morton J. Risk factors for an intensive care unit admission in children with asthma. *Pediatr Pulmonol* 2004;37(3):201–209.
- Bell HM, McElnay JC, Hughes CM, Gleadhill I. Primary schoolteachers' knowledge of asthma: the impact of pharmacist intervention. *J Asthma* 2000;37(7):545–555.
- Bellia V, Cibella F, Cuttitta G, Scichilone N, Mancuso G, Vignola AM, Bonsignore G. Effect of age upon airway obstruction and reversibility in adult patients with asthma. *Chest* 1998;114(5):1336–1342.
- Belloch A, Perpina M, Martinez-Moragon E, De Diego A, Martinez-Frances M. Gender differences in health-related quality of life among patients with asthma. *J Asthma* 2003;40(8):945–953.
- Ben Noun L. Acute asthma associated with sustained-release verapamil. *Ann Pharmacother* 1997;31(5):593–595.
- Bencivenga M, Capasso M, Capristo C, Del Giudice MM Jr, Salvestrini S, Capasso S. Contribution of air-proof doors and windows to asthma in Campania Plain (Italy). *Int J Environ Health Res* 2004;14(3):231–235.
- Bender B, Milgrom H, Rand C, Ackerson L. Psychological factors associated with medication nonadherence in asthmatic children. *J Asthma* 1998;35(4):347–353.
- Bender BG, Ikle DN, DuHamel T, Tinkelman D. Neuropsychological and behavioral changes in asthmatic children treated with beclomethasone dipropionate versus theophylline. *Pediatrics* 1998;101(3 Pt 1):355–360.
- Bender BG. Overcoming barriers to nonadherence in asthma treatment. *J Allergy Clin Immunol* 2002;109(6 Suppl):S554–S559.
- Benito-Fernandez J, Gonzalez-Balenciaga M, Capape-Zache S, Vazquez-Ronco MA, Mintegi-Raso S. Salbutamol via metered-dose inhaler with spacer versus nebulization for acute treatment of pediatric asthma in the emergency department. *Pediatr Emerg Care* 2004;20(10):656–659.
- Bennett ML, Fountain JM, McCarty MA, Sherertz EF. Contact allergy to corticosteroids in patients using inhaled or intranasal corticosteroids for allergic rhinitis or asthma. *Am J Contact Dermat* 2001;12(4):193–196.
- Bensch G, Lapidus RJ, Levine BE, Lumry W, Yegen U, Kiselev P, Della Cioppa G. A randomized, 12-week, double-blind, placebo-controlled study comparing formoterol dry powder inhaler with albuterol metered-dose inhaler. *Ann Allergy Asthma Immunol* 2001;86(1):19–27.
- Bensch G, Berger WE, Blokhin BM, Socolovsky AL, Thomson MH, Till MD, Castellsague J, Della Cioppa G. One-year efficacy and safety of inhaled formoterol dry powder in children with persistent asthma. *Ann Allergy Asthma Immunol* 2002;89(2):180–190.

Bentur L, Mansour Y, Hamzani Y, Beck R, Elias N, Amirav I. Measurement of inspiratory flow in children with acute asthma. *Pediatr Pulmonol* 2004;38(4):304–307.

Berend N, Kellett B, Kent N, Sly PD. Improved safety with equivalent asthma control in adults with chronic severe asthma on high-dose fluticasone propionate. *Respirology* 2001;6(3):237–246.

Berg J, Dunbar-Jacob J, Sereika SM. An evaluation of a self-management program for adults with asthma. *Clin Nurs Res* 1997;6(3):225–238.

Berge M, Munir AK, Dreborg S. Concentrations of cat (Fel d1), dog (Can f1) and mite (Der f1 and Der p1) allergens in the clothing and school environment of Swedish schoolchildren with and without pets at home. *Pediatr Allergy Immunol* 1998;9(1):25–30.

Bergen R, Black S, Shinefield H, Lewis E, Ray P, Hansen J, Walker R, Hessel C, Cordova J, Mendelman PM. Safety of cold-adapted live attenuated influenza vaccine in a large cohort of children and adolescents. *Pediatr Infect Dis J* 2004;23(2):138–144.

Berger W, Gupta N, McAlary M, Fowler-Taylor A. Evaluation of long-term safety of the anti-IgE antibody, omalizumab, in children with allergic asthma. *Ann Allergy Asthma Immunol* 2003;91(2):182–188.

Berger WE, Ford LB, Mahr T, Nathan RA, Crim C, Edwards L, Wightman DS, Lincourt WR, Rickard K. Efficacy and safety of fluticasone propionate 250 microg administered once daily in patients with persistent asthma treated with or without inhaled corticosteroids. *Ann Allergy Asthma Immunol* 2002;89(4):393–399.

Berger WE. Levalbuterol: pharmacologic properties and use in the treatment of pediatric and adult asthma. *Ann Allergy Asthma Immunol* 2003;90(6):583–591, quiz 591–592, 659.

Berges-Gimeno MP, Simon RA, Stevenson DD. Long-term treatment with aspirin desensitization in asthmatic patients with aspirin-exacerbated respiratory disease. *J Allergy Clin Immunol* 2003;111(1):180–186.

Berges-Gimeno MP, Simon RA, Stevenson DD. Early effects of aspirin desensitization treatment in asthmatic patients with aspirin-exacerbated respiratory disease. *Ann Allergy Asthma Immunol* 2003;90(3):338–341.

Berggren F, Ekstrom T. A cost-effectiveness study comparing the as-needed use of formoterol (Oxis) and terbutaline (Bricanyl) in patients with moderate to severe asthma. *Respir Med* 2001;95(9):753–758.

Bergmann KC, Lindemann L, Braun R, Steinkamp G. Salmeterol/fluticasone propionate (50/250 icrog) combination is superior to double dose fluticasone (500 microg) for the treatment of symptomatic moderate asthma. *Swiss Med Wkly* 2004;134(3–4):50–58.

Berkman N, Avital A, Bardach E, Springer C, Breuer R, Godfrey S. The effect of montelukast on bronchial provocation tests and exhaled nitric oxide levels in asthmatic patients. *Isr Med Assoc J* 2003;5(11):778–781.

Berman BA, Wong GC, Bastani R, Hoang T, Jones C, Goldstein DR, Bernert JT, Hammond KS, Tashkin D, Lewis MA. Household smoking behavior and ETS exposure among children with asthma in low-income, minority households. *Addict Behav* 2003;28(1):111–128.

Bernard-Bonnin AC, Stachenko S, Bonin D, Charette C, Rousseau E. Self-management teaching programs and morbidity of pediatric asthma: a meta-analysis. *J Allergy Clin Immunol* 1995;95(1 Pt 1):34–41.

Berry MA, Hargadon B, Shelley M, Parker D, Shaw DE, Green RH, Bradding P, Brightling CE, Wardlaw AJ, Pavord ID. Evidence of a role of tumor necrosis factor alpha in refractory asthma. *N Engl J Med* 2006;354(7):697–708.

Bertolotti G, Carone M, Viaggi S, Moscato G, Neri M, Rampulla C, Fabbri LM, Zanon P, Donner CF. Reliability of a questionnaire for evaluating the understanding of asthma. *Monaldi Arch Chest Dis* 2001;56(1):11–16.

Besbes-Ouanes L, Nouira S, Elatrous S, Knani J, Boussarsar M, Abroug F. Continuous versus intermittent nebulization of salbutamol in acute severe asthma: a randomized, controlled trial. *Ann Emerg Med* 2000;36(3):198–203.

Bessmerthy O, DiGregorio RV, Cohen H, Becker E, Looney D, Golden J, Kohl L, Johnson T. A randomized clinical trial of nebulized magnesium sulfate in addition to albuterol in the treatment of acute mild-to-moderate asthma exacerbations in adults. *Ann Emerg Med* 2002;39(6):585–591.

Beuther DA, Martin RJ. Antibiotics in asthma. *Curr Allergy Asthma Rep* 2004;4(2):132–138.

Bheekie A, Syce JA, Weinberg EG. Peak expiratory flow rate and symptom self-monitoring of asthma initiated from community pharmacies. *J Clin Pharm Ther* 2001;26(4):287–296.

Bibi H, Shoseyov D, Feigenbaum D, Nir P, Shiachi R, Scharff S, Peled R. Comparison of positive allergy skin tests among asthmatic children from rural and urban areas living within small geographic area. *Ann Allergy Asthma Immunol* 2002;88(4):416–420.

Biernacki W, Peake MD. Acupuncture in treatment of stable asthma. *Respir Med* 1998;92(9):1143–1145.

Bingol KG, Yilmaz M, Sur S, Ufuk AD, Sarpel T, Guneter KS. The effects of daily pulmonary rehabilitation program at home on childhood asthma. *Allergol Immunopathol (Madr)* 2000;28(1):12–14.

Bircher AJ, Bigliardi P, Zaugg T, Makinen-Kiljunen S. Delayed generalized allergic reactions to corticosteroids. *Dermatology* 2000;200(4):349–351.

Bisgaard H, Nielsen KG. Bronchoprotection with a leukotriene receptor antagonist in asthmatic preschool children. *Am J Respir Crit Care Med* 2000;162(1):187–190.

Bisgaard H, Price MJ, Maden C, Olsen NA. Cost-effectiveness of fluticasone propionate administered via metered-dose inhaler plus babyhaler spacer in the treatment of asthma in preschool-aged children. *Chest* 2001;120(6):1835–1842.

Bisgaard H. A randomized trial of montelukast in respiratory syncytial virus postbronchiolitis. *Am J Respir Crit Care Med* 2003;167(3):379–383.

Bisgaard H, Allen D, Milanowski J, Kaley I, Willits L, Davies P. Twelve-month safety and efficacy of inhaled fluticasone propionate in children aged 1 to 3 years with recurrent wheezing. *Pediatrics* 2004;113(2):e87–e94.

Bisgaard H, Zielen S, Garcia-Garcia ML, Johnston SL, Gilles L, Menten J, Tozzi CA, Polos P. Montelukast reduces asthma exacerbations in 2- to 5-year-old children with intermittent asthma. *Am J Respir Crit Care Med* 2005;171(4):315–322. Epub November 2004.

Bjermer L, Bisgaard H, Bousquet J, Fabbri LM, Greening AP, Haahtela T, Holgate ST, Picado C, Menten J, Dass SB et al. Montelukast and fluticasone compared with salmeterol and fluticasone in protecting against asthma exacerbation in adults: one year, double blind, randomised, comparative trial. *BMJ* 2003;327(7420):891.

Black PN, Scicchitano R, Jenkins CR, Blasi F, Allegra L, Wlodarczyk J, Cooper BC. Serological evidence of infection with Chlamydia pneumoniae is related to the severity of asthma. *Eur Respir J* 2000;15(2):254–259.

Black PN, Udy AA, Brodie SM. Sensitivity to fungal allergens is a risk factor for life-threatening asthma. *Allergy* 2000;55(5):501–504.

Blackstien-Hirsch P, Anderson G, Cicutto L, McIvor A, Norton P. Implementing continuing education strategies for family physicians to enhance asthma patients' quality of life. *J Asthma* 2000;37(3):247–257.

Blais L, Beauchesne MF. Use of inhaled corticosteroids following discharge from an emergency department for an acute exacerbation of asthma. *Thorax* 2004;59(11):943–947.

Blanc PD, Kuschner WG, Katz PP, Smith S, Yelin EH. Use of herbal products, coffee or black tea, and over-the-counter medications as self-treatments among adults with asthma. *J Allergy Clin Immunol* 1997;100(6 Pt 1):789–791.

Blanc PD, Trupin L, Earnest G, Katz PP, Yelin EH, Eisner MD. Alternative therapies among adults with a reported diagnosis of asthma or rhinosinusitis: data from a population-based survey. *Chest* 2001;120(5):1461–1467.

Blanc PD, Trupin L, Earnest G, San Pedro M, Katz PP, Yelin EH, Eisner MD. Effects of physician-related factors on adult asthma care, health status, and quality of life. *Am J Med* 2003;114(7):581–587.

Bleecker ER, Welch MJ, Weinstein SF, Kalberg C, Johnson M, Edwards L, Rickard KA. Low-dose inhaled fluticasone propionate versus oral zafirlukast in the treatment of persistent asthma. *J Allergy Clin Immunol* 2000;105(6 Pt 1):1123–1129.

Blitz M, Blitz S, Hughes R, Diner B, Beasley R, Knopp J, Rowe BH. Aerosolized magnesium sulfate for acute asthma: a systematic review. *Chest* 2005;128(1):337–344.

Blitz M, Blitz S, Beasley R, Diner BM, Hughes R, Knopp JA, Rowe BH. Inhaled magnesium sulfate in the treatment of acute asthma. *Cochrane Database Syst Rev* 2005;(2):CD003898.

- Bloomberg GR, Trinkaus KM, Fisher EB Jr, Musick JR, Strunk RC. Hospital readmissions for childhood asthma: a 10-year metropolitan study. *Am J Respir Crit Care Med* 2003;167(8):1068–1076.
- Blumenthal MN, Casale TB, Fink JN, Uryniak T, Casty FE. Evaluation of a non-chlorofluorocarbon formulation of cromolyn sodium (Intal) metered-dose inhaler versus the chlorofluorocarbon formulation in the treatment of adult patients with asthma: a controlled trial. *J Allergy Clin Immunol* 1998;101(1 Pt 1):7–13.
- Boccagni C, Tesser F, Mittino D, Terazzi E, Naldi P, Colombi S, Zoppis E, Monaco F. Churg-Strauss syndrome associated with the leukotriene antagonist montelukast. *Neurol Sci* 2004;25(1):21–22.
- Bockenhauer SE, Julliard KN, Lo KS, Huang E, Sheth AM. Quantifiable effects of osteopathic manipulative techniques on patients with chronic asthma. *J Am Osteopath Assoc* 2002;102(7):371–375.
- Boeree MJ, Peters FT, Postma DS, Kleibeuker JH. No effects of high-dose omeprazole in patients with severe airway hyperresponsiveness and (a)symptomatic gastro-oesophageal reflux. *Eur Respir J* 1998;11(5):1070–1074.
- Bollinger ME, Butz A, Mudd K, Hamilton RG. Contamination of nebulizers with environmental allergens. *Ann Allergy Asthma Immunol* 2005;95(5):429–432.
- Bond DW, Vyas H, Venning HE. Mydriasis due to self-administered inhaled ipratropium bromide. *Eur J Pediatr* 2002;161(3):178.
- Bonner S, Zimmerman BJ, Evans D, Irigoyen M, Resnick D, Mellins RB. An individualized intervention to improve asthma management among urban Latino and African-American families. *J Asthma* 2002;39(2):167–179.
- Boonsawat W, Charoenratanakul S, Pothirat C, Sawanyawisuth K, Seearamroongruang T, Bengtsson T, Brander R, Selroos O. Formoterol (OXIS) Turbuhaler as a rescue therapy compared with salbutamol pMDI plus spacer in patients with acute severe asthma. *Respir Med* 2003;97(9):1067–1074.
- Boonyavorakul C, Thakkinstian A, Charoenpan P. Intravenous magnesium sulfate in acute severe asthma. *Respirology* 2000;5(3):221–225.
- Borgstrom L, Bengtsson T, Derom E, Pauwels R. Variability in lung deposition of inhaled drug, within and between asthmatic patients, with a pMDI and a dry powder inhaler, Turbuhaler. *Int J Pharm* 2000;193(2):227–230.
- Borish LC, Nelson HS, Lanz MJ, Claussen L, Whitmore JB, Agosti JM, Garrison L. Interleukin-4 receptor in moderate atopic asthma. A phase I/II randomized, placebo-controlled trial. *Am J Respir Crit Care Med* 1999;160(6):1816–1823.
- Borreli B, McQuaid EL, Becker B, Hammond K, Papandonatos G, Fritz G, Abrams D. Motivating parents of kids with asthma to quit smoking: the PAQS project. *Health Educ Res* 2002;17(5):659–669.

Boudreux ED, Clark S, Camargo CA Jr. Telephone follow-up after the emergency department visit: experience with acute asthma. On behalf of the MARC Investigators. *Ann Emerg Med* 2000;35(6):555–563.

Boudreux ED, Emond SD, Clark S, Camargo CA Jr. Acute asthma among adults presenting to the emergency department: the role of race/ethnicity and socioeconomic status. *Chest* 2003;124(3):803–812.

Boulet LP, Belanger M, Lajoie P. Characteristics of subjects with a high frequency of emergency visits for asthma. *Am J Emerg Med* 1996;14(7):623–628.

Boulet LP, Turcotte H, Laprise C, Lavertu C, Bedard PM, Lavoie A, Hebert J. Comparative degree and type of sensitization to common indoor and outdoor allergens in subjects with allergic rhinitis and/or asthma. *Clin Exp Allergy* 1997;27(1):52–59.

Boulet LP, Chapman KR, Cote J, Kalra S, Bhagat R, Swystun VA, Laviolette M, Cleland LD, Deschesnes F, Su JQ, et al. Inhibitory effects of an anti-IgE antibody E25 on allergen-induced early asthmatic response. *Am J Respir Crit Care Med* 1997;155(6):1835–1840.

Boulet LP. Perception of the role and potential side effects of inhaled corticosteroids among asthmatic patients. *Chest* 1998;113(3):587–592.

Boulet LP, Cowie RL, Negro RD, Brett W, Gold M, Marques A, Thorburn WS, Stepner NM, Robson R. Comparison of once- with twice-daily dosing of fluticasone propionate in mild and moderate asthma. *Can Respir J* 2000;7(3):239–247.

Boulet LP, Chakir J, Milot J, Boutet M, Laviolette M. Effect of salmeterol on allergen-induced airway inflammation in mild allergic asthma. *Clin Exp Allergy* 2001;31(3):430–437.

Boulet LP, Phillips R, O'Byrne P, Becker A. Evaluation of asthma control by physicians and patients: comparison with current guidelines. *Can Respir J* 2002;9(6):417–423.

Boulet LP, Cartier A, Ernst P, Larivee P, Laviolette M. Safety and efficacy of HFA-134a beclomethasone dipropionate extra-fine aerosol over six months. *Can Respir J* 2004;11(2):123–130.

Boushey HA, Sorkness CA, King TS, Sullivan SD, Fahy JV, Lazarus SC, Chinchilli VM, Craig TJ, DiMango EA, Deykin A, et al.; National Heart, Lung, and Blood Institute's Asthma Clinical Research Network. Daily versus as-needed corticosteroids for mild persistent asthma. *N Engl J Med* 2005;352(15):1519–1528.

Bousquet J, Scheinmann P, Guinnepain MT, Perrin-Fayolle M, Sauvaget J, Tonnel AB, Pauli G, Caillaud D, Dubost R, Leynadier F, et al. Sublingual-swallow immunotherapy (SLIT) in patients with asthma due to house-dust mites: a double-blind, placebo-controlled study. *Allergy* 1999;54(3):249–260.

Bousquet J, D'Urzo A, Hebert J, Barraza CH, Boulet LP, Suarez-Chacon R, Harnest U, Lundback B, Martinez MG, Nieminen MM, et al. Comparison of the efficacy and safety of mometasone furoate dry powder inhaler to budesonide Turbuhaler. *Eur Respir J* 2000;16(5):808–816.

Bousquet J, Cantini L. Clinical studies in asthmatics with a new non-extra fine HFA formulation of beclometasone dipropionate (BDP Modulite). *Respir Med* 2002;96 Suppl D:S17–S27.

Bousquet J, Ben Joseph R, Messonnier M, Alemao E, Gould AL. A meta-analysis of the dose-response relationship of inhaled corticosteroids in adolescents and adults with mild to moderate persistent asthma. *Clin Ther* 2002;24(1):1–20.

Bousquet J, Wenzel S, Holgate S, Lumry W, Freeman P, Fox H. Predicting response to omalizumab, an anti-IgE antibody, in patients with allergic asthma. *Chest* 2004;125(4):1378–1386.

Bousquet J, Boushey HA, Busse WW, Canonica GW, Durham SR, Irvin CG, Karpel JP, Van Cauwenberge P, Chen R, Iezzoni DG, et al. Characteristics of patients with seasonal allergic rhinitis and concomitant asthma. *Clin Exp Allergy* 2004;34(6):897–903.

Bousquet J, Cabrera P, Berkman N, Buhl R, Holgate S, Wenzel S, Fox H, Hedgecock S, Blogg M, Cioppa GD. The effect of treatment with omalizumab, an anti-IgE antibody, on asthma exacerbations and emergency medical visits in patients with severe persistent asthma. *Allergy* 2005;60(3):302–308.

Bousquet J, Huchon G, Leclerc V, Vicaut E, Lefrancois G. A randomized, double-blind, double-dummy, single-dose, efficacy crossover trial comparing formoterol-HFA (pMDI) versus formoterol-DPI (Aerolizer) and placebo (pMDI or Aerolizer) in asthmatic patients. *Respiration* 2005;72 Suppl 1:6–12.

Boutin-Forzano S, Adel N, Gratecos L, Jullian H, Garnier JM, Ramadour M, Lanteaume A, Hamon M, Lafay V, Charpin D. Visits to the emergency room for asthma attacks and short-term variations in air pollution. A case-crossover study. *Respiration* 2004;71(2):134–137.

Boychuk RB, Yamamoto LG, DeMesa CJ, Kiyabu KM. Correlation of initial emergency department pulse oximetry values in asthma severity classes (steps) with the risk of hospitalization. *Am J Emerg Med* 2006;24(1):48–52.

Boyd R, Stuart P. Pressurised metered dose inhalers with spacers versus nebulisers for beta-agonist delivery in acute asthma in children in the emergency department. *Emerg Med J* 2005;22(9):641–642.

Brabson JH, Clifford D, Kerwin E, Raphael G, Pepsin PJ, Edwards LD, Srebro S, Rickard K. Efficacy and safety of low-dose fluticasone propionate compared with zafirlukast in patients with persistent asthma. *Am J Med* 2002;113(1):15–21.

Bradding P, Rushby I, Scullion J, Morgan MD. As-required versus regular nebulized salbutamol for the treatment of acute severe asthma. *Eur Respir J* 1999;13(2):290–294.

Bradley JP, Bacharier LB, Bonfiglio J, Schechtman KB, Strunk R, Storch G, Castro M. Severity of respiratory syncytial virus bronchiolitis is affected by cigarette smoke exposure and atopy. *Pediatrics* 2005;115(1):e7–14.

Braganza S, Ozuah PO, Sharif I. The use of complementary therapies in inner-city asthmatic children. *J Asthma* 2003;40(7):823–827.

Brambilla C, Le G, V, Bourdeix I. Formoterol 12 microg BID administered via single-dose dry powder inhaler in adults with asthma suboptimally controlled with salmeterol or on-demand salbutamol: a multicenter, randomized, open-label, parallel-group study. *Clin Ther* 2003;25(7):2022–2036.

Brand PL, Duiverman EJ, Waalkens HJ, Essen-Zandvliet EE, Kerrebijn KF. Peak flow variation in childhood asthma: correlation with symptoms, airways obstruction, and hyperresponsiveness during long-term treatment with inhaled corticosteroids. Dutch CNSLD Study Group. *Thorax* 1999;54(2):103–107.

Braun-Fahrlander C, Riedler J, Herz U, Eder W, Waser M, Grize L, Maisch S, Carr D, Gerlach F, Bufl A, et al. Environmental exposure to endotoxin and its relation to asthma in school-age children. *N Engl J Med* 2002;347(12):869–877.

Braunstahl GJ, KleinJan A, Overbeek SE, Prins JB, Hoogsteden HC, Fokkens WJ. Segmental bronchial provocation induces nasal inflammation in allergic rhinitis patients. *Am J Respir Crit Care Med* 2000;161(6):2051–2057.

Braunstahl GJ, Overbeek SE, KleinJan A, Prins JB, Hoogsteden HC, Fokkens WJ. Nasal allergen provocation induces adhesion molecule expression and tissue eosinophilia in upper and lower airways. *J Allergy Clin Immunol* 2001;107(3):469–476.

Braunstahl GJ, Overbeek SE, Fokkens WJ, KleinJan A, McEuen AR, Walls AF, Hoogsteden HC, Prins JB. Segmental bronchoprovocation in allergic rhinitis patients affects mast cell and basophil numbers in nasal and bronchial mucosa. *Am J Respir Crit Care Med* 2001;164(5):858–865.

Brenner B, Kohn MS. The acute asthmatic patient in the ED: to admit or discharge. *Am J Emerg Med* 1998;16(1):69–75.

Brenner BE, Chavda KK, Camargo CA Jr. Randomized trial of inhaled flunisolide versus placebo among asthmatic patients discharged from the emergency department. *Ann Emerg Med* 2000;36(5):417–426.

Brenner BE, Chavda KK, Karakurum MB, Karras DJ, Camargo CA Jr. Circadian differences among 4,096 emergency department patients with acute asthma. *Crit Care Med* 2001;29(6):1124–1129.

Brenner BE, Holmes TM, Mazal B, Camargo CA Jr. Relation between phase of the menstrual cycle and asthma presentations in the emergency department. *Thorax* 2005;60(10):806–809.

Brewin AM, Hughes JA. Effect of patient education on asthma management. *Br J Nurs* 1995;4(2):81–101.

Broeders ME, Molema J, Hop WC, Vermue NA, Folgering HT. Does the inhalation device affect the bronchodilatory dose response curve of salbutamol in asthma and chronic obstructive pulmonary disease patients? *Eur J Clin Pharmacol* 2003;59(5–6):449–455.

Broeders ME, Molema J, Hop WC, Vermue NA, Folgering HT. The course of inhalation profiles during an exacerbation of obstructive lung disease. *Respir Med* 2004;98(12):1173–1179.

Broeders ME, Molema J, Hop WC, Folgering HT. Salbutamol pMDI gives less protection to methacholine induced airway obstruction than salbutamol via spacer or DPI. *Eur J Clin Pharmacol* 2005;60(12):837–841.

Bronsky EA, Yegen U, Yeh CM, Larsen LV, Della Cioppa G. Formoterol provides long-lasting protection against exercise-induced bronchospasm. *Ann Allergy Asthma Immunol* 2002;89(4):407–412.

Brotanek JM, Halterman J, Auinger P, Weitzman M. Inadequate access to care among children with asthma from Spanish-speaking families. *J Health Care Poor Underserved* 2005;16(1):63–73.

Brown ES, Suppes T, Khan DA, Carmody TJ III. Mood changes during prednisone bursts in outpatients with asthma. *J Clin Psychopharmacol* 2002;22(1):55–61.

Brown ES, Vigil L, Khan DA, Liggin JD, Carmody TJ, Rush AJ. A randomized trial of citalopram versus placebo in outpatients with asthma and major depressive disorder: a proof of concept study. *Biol Psychiatry* 2005;58(11):865–870.

Brown JV, Bakeman R, Celano MP, Demi AS, Kobrynski L, Wilson SR. Home-based asthma education of young low-income children and their families. *J Pediatr Psychol* 2002;27(8):677–688.

Brown R, Bratton SL, Cabana MD, Kaciroti N, Clark NM. Physician asthma education program improves outcomes for children of low-income families. *Chest* 2004;126(2):369–374.

Browne GJ, Penna AS, Phung X, Soo M. Randomised trial of intravenous salbutamol in early management of acute severe asthma in children. *Lancet* 1997;349(9048):301–305.

Browne GJ, Giles H, McCaskill ME, Fasher BJ, Lam LT. The benefits of using clinical pathways for managing acute paediatric illness in an emergency department. *J Qual Clin Pract* 2001;21(3):50–55.

Browne GJ, Trieu L, Van Asperen P. Randomized, double-blind, placebo-controlled trial of intravenous salbutamol and nebulized ipratropium bromide in early management of severe acute asthma in children presenting to an emergency department. *Crit Care Med* 2002;30(2):448–453.

Brussee JE, Smit HA, van Strien RT, Corver K, Kerkhof M, Wijga AH, Aalberse RC, Postma D, Gerritsen J, Grobbee DE, et al. Allergen exposure in infancy and the development of sensitization, wheeze, and asthma at 4 years. *J Allergy Clin Immunol* 2005;115(5):946–952.

Brussee JE, Smit HA, Kerkhof M, Koopman LP, Wijga AH, Postma DS, Gerritsen J, Grobbee DE, Brunekreef B, de Jongste JC. Exhaled nitric oxide in 4-year-old children: relationship with asthma and atopy. *Eur Respir J* 2005;25(3):455–461.

Bruton A, Lewith GT. The Buteyko breathing technique for asthma: a review. *Complement Ther Med* 2005;13(1):41–46.

Bruzzone JM, Markman LB, Appel D, Webber M. An evaluation of Open Airways for Schools: using college students as instructors. *J Asthma* 2001;38(4):337–342.

Bryant-Stephens T, Li Y. Community asthma education program for parents of urban asthmatic children. *J Natl Med Assoc* 2004;96(7):954–960.

Bryce FP, Neville RG, Crombie IK, Clark RA, McKenzie P. Controlled trial of an audit facilitator in diagnosis and treatment of childhood asthma in general practice. *BMJ* 1995;310(6983):838–842.

Brygge T, Heinig JH, Collins P, Ronborg S, Gehrchen PM, Hilden J, Heegaard S, Poulsen LK. Reflexology and bronchial asthma. *Respir Med* 2001;95(3):173–179.

Buchner DA, Butt LT, De Stefano A, Edgren B, Suarez A, Evans RM. Effects of an asthma management program on the asthmatic member: patient-centered results of a 2-year study in a managed care organization. *Am J Manag Care* 1998;4(9):1288–1297.

Buchvald F, Bisgaard H. Comparisons of the complementary effect on exhaled nitric oxide of salmeterol vs montelukast in asthmatic children taking regular inhaled budesonide. *Ann Allergy Asthma Immunol* 2003;91(3):309–313.

Buchvald F, Baraldi E, Carraro S, Gaston B, De Jongste J, Pijnenburg MW, Silkoff PE, Bisgaard H. Measurements of exhaled nitric oxide in healthy subjects age 4 to 17 years. *J Allergy Clin Immunol* 2005;115(6):1130–1136.

Bueving HJ, Bernsen RM, de Jongste JC, Suijlekom-Smit LW, Rimmelzwaan GF, Osterhaus AD, Rutten-van Molken MP, Thomas S, van der Wouden JC. Does influenza vaccination exacerbate asthma in children? *Vaccine* 2004;23(1):91–96.

Bueving HJ, van der Wouden JC, Raat H, Bernsen RM, de Jongste JC, Suijlekom-Smit LW, Osterhaus AD, Rimmelzwaan GF, Molken MR, Thomas S. Influenza vaccination in asthmatic children: effects on quality of life and symptoms. *Eur Respir J* 2004;24(6):925–931.

Bueving HJ, Bernsen RM, de Jongste JC, Suijlekom-Smit LW, Rimmelzwaan GF, Osterhaus AD, Rutten-van Molken MP, Thomas S, van der Wouden JC. Influenza vaccination in children with asthma: randomized double-blind placebo-controlled trial. *Am J Respir Crit Care Med* 2004;169(4):488–493.

Bufe A, Ziegler-Kirbach E, Stoeckmann E, Heidemann P, Gehlhar K, Holland-Letz T, Braun W. Efficacy of sublingual swallow immunotherapy in children with severe grass pollen allergic symptoms: a double-blind placebo-controlled study. *Allergy* 2004;59(5):498–504.

Buhl R, Hanf G, Soler M, Bensch G, Wolfe J, Everhard F, Champain K, Fox H, Thirlwell J. The anti-IgE antibody omalizumab improves asthma-related quality of life in patients with allergic asthma. *Eur Respir J* 2002;20(5):1088–1094.

Buhl R, Creemers JP, Vondra V, Martelli NA, Naya IP, Ekstrom T. Once-daily budesonide/formoterol in a single inhaler in adults with moderate persistent asthma. *Respir Med* 2003;97(4):323–330.

Bukstein DA, McGrath MM, Buchner DA, Landgraf J, Goss TF. Evaluation of a short form for measuring health-related quality of life among pediatric asthma patients. *J Allergy Clin Immunol* 2000;105(2 Pt 1):245–251.

Bukstein DA, Henk HJ, Luskin AT. A comparison of asthma-related expenditures for patients started on montelukast versus fluticasone propionate as monotherapy. *Clin Ther* 2001;23(9):1589–1600.

Bukstein DA, Bratton DL, Firriolo KM, Estojak J, Bird SR, Hustad CM, Edelman JM. Evaluation of parental preference for the treatment of asthmatic children aged 6 to 11 years with oral montelukast or inhaled cromolyn: a randomized, open-label, crossover study. *J Asthma* 2003;40(5):475–485.

Bukstein DA, Luskin AT, Bernstein A. "Real-world" effectiveness of daily controller medicine in children with mild persistent asthma. *Ann Allergy Asthma Immunol* 2003;90(5):543–549.

Burchard EG, Avila PC, Nazario S, Casal J, Torres A, Rodriguez-Santana JR, Toscano M, Sylvia JS, Alioto M, Salazar M, et al. Lower bronchodilator responsiveness in Puerto Rican than in Mexican subjects with asthma. *Am J Respir Crit Care Med* 2004;169(3):386–392.

Burggraaf J, Westendorp RG, in't Veen JC, Schoemaker RC, Sterk PJ, Cohen AF, Blauw GJ. Cardiovascular side effects of inhaled salbutamol in hypoxic asthmatic patients. *Thorax* 2001;56(7):567–569.

Burkhart PV, Dunbar-Jacob JM, Rohay JM. Accuracy of children's self-reported adherence to treatment. *J Nurs Scholarsh* 2001;33(1):27–32.

Burkhart PV, Dunbar-Jacob JM, Fireman P, Rohay J. Children's adherence to recommended asthma self-management. *Pediatr Nurs* 2002;28(4):409–414.

Burns D. The management of exacerbations of acute asthma in primary care. *Nurs Times* 2004;100(6):48–50.

Burton WN, Connerty CM, Schultz AB, Chen CY, Edington DW. Bank One's worksite-based asthma disease management program. *J Occup Environ Med* 2001;43(2):75–82.

Busse PJ, Wang JJ, Halm EA. Allergen sensitization evaluation and allergen avoidance education in an inner-city adult cohort with persistent asthma. *J Allergy Clin Immunol* 2005;116(1):146–152.

Busse W, Nelson H, Wolfe J, Kalberg C, Yancey SW, Rickard KA. Comparison of inhaled salmeterol and oral zafirlukast in patients with asthma. *J Allergy Clin Immunol* 1999;103(6):1075–1080.

Busse W, Raphael GD, Galant S, Kalberg C, Goode-Sellers S, Srebro S, Edwards L, Rickard K; Fluticasone Propionate Clinical Research Study Group. Low-dose fluticasone propionate compared with montelukast for first-line treatment of persistent asthma: a randomized clinical trial. *J Allergy Clin Immunol* 2001;107(3):461–468.

Busse W, Wolfe J, Storms W, Srebro S, Edwards L, Johnson M, Bowers BW, Rogenes PR, Rickard K. Fluticasone propionate compared with zafirlukast in controlling persistent asthma: a randomized double-blind, placebo-controlled trial. *J Fam Pract* 2001;50(7):595–602.

Busse W, Corren J, Lanier BQ, McAlary M, Fowler-Taylor A, Cioppa GD, van As A, Gupta N. Omalizumab, anti-IgE recombinant humanized monoclonal antibody, for the treatment of severe allergic asthma. *J Allergy Clin Immunol* 2001;108(2):184–190.

Butland BK, Strachan DP, Anderson HR. The home environment and asthma symptoms in childhood: two population based case-control studies 13 years apart. *Thorax* 1997;52(7):618–624.

Butler K, Cooper WO. Adherence of pediatric asthma patients with oral corticosteroid prescriptions following pediatric emergency department visit or hospitalization. *Pediatr Emerg Care* 2004;20(11):730–735.

Butz A, Pham L, Lewis L, Lewis C, Hill K, Walker J, Winkelstein M. Rural children with asthma: impact of a parent and child asthma education program. *J Asthma* 2005;42(10):813–821.

Butz AM, Huss K, Mudd K, Donithan M, Rand C, Bollinger ME. Asthma management practices at home in young inner-city children. *J Asthma* 2004;41(4):433–444.

Butz AM, Donithan M, Bollinger ME, Rand C, Thompson RE. Monitoring nebulizer use in children: comparison of electronic and asthma diary data. *Ann Allergy Asthma Immunol* 2005;94(3):360–365.

Bynum A, Hopkins D, Thomas A, Copeland N, Irwin C. The effect of telepharmacy counseling on metered-dose inhaler technique among adolescents with asthma in rural Arkansas. *Telemed J E Health* 2001;7(3):207–217.

Cabana MD, Ebel BE, Cooper-Patrick L, Powe NR, Rubin HR, Rand CS. Barriers pediatricians face when using asthma practice guidelines. *Arch Pediatr Adolesc Med* 2000;154(7):685–693.

Cabana MD, Rand CS, Becher OJ, Rubin HR. Reasons for pediatrician nonadherence to asthma guidelines. *Arch Pediatr Adolesc Med* 2001;155(9):1057–1062.

Cabana MD, Flores G. The role of clinical practice guidelines in enhancing quality and reducing racial/ethnic disparities in paediatrics. *Paediatr Respir Rev* 2002;3(1):52–58.

Cabana MD, Bruckman D, Meister K, Bradley JF, Clark N. Documentation of asthma severity in pediatric outpatient clinics. *Clin Pediatr (Phila)* 2003;42(2):121–125.

Cabana MD, Bruckman D, Bratton SL, Kemper AR, Clark NM. Association between outpatient follow-up and pediatric emergency department asthma visits. *J Asthma* 2003;40(7):741–749.

Cabana MD, Rand C, Slish K, Nan B, Davis MM, Clark N. Pediatrician self-efficacy for counseling parents of asthmatic children to quit smoking. *Pediatrics* 2004;113(1 Pt 1):78–81.

Cabana MD, Slish KK, Lewis TC, Brown RW, Nan B, Lin X, Clark NM. Parental management of asthma triggers within a child's environment. *J Allergy Clin Immunol* 2004;114(2):352–357.

Cabana MD, Slish KK, Brown R, Clark NM. Pediatrician attitudes and practices regarding collaborative asthma education. *Clin Pediatr (Phila)* 2004;43(3):269–274.

Cabana MD, Slish KK, Nan B, Lin X, Clark NM. Asking the correct questions to assess asthma symptoms. *Clin Pediatr (Phila)* 2005;44(4):319–325.

Cabral AL, Conceicao GM, Fonseca-Guedes CH, Martins MA. Exercise-induced bronchospasm in children: effects of asthma severity. *Am J Respir Crit Care Med* 1999;159(6):1819–1823.

Cacciottolo JM, Balzan MV, Buhagiar A. Hospitalization of adults for asthma and inhaled corticosteroid use in an island population. *Respir Med* 1997;91(7):411–416.

Caffarelli C, Bacchini PL, Gruppi L, Bernasconi S. Exercise-induced bronchoconstriction in children with atopic eczema. *Pediatr Allergy Immunol* 2005;16(8):655–661.

Calhoun WJ, Nelson HS, Nathan RA, Pepsin PJ, Kalberg C, Emmett A, Rickard KA, Dorinsky P. Comparison of fluticasone propionate-salmeterol combination therapy and montelukast in patients who are symptomatic on short-acting beta(2)-agonists alone. *Am J Respir Crit Care Med* 2001;164(5):759–763.

Calhoun WJ, Hinton KL, Kratzenberg JJ. The effect of salmeterol on markers of airway inflammation following segmental allergen challenge. *Am J Respir Crit Care Med* 2001;163(4):881–886.

Calvo GM, Calvo AM, Marin HF, Moya GJ. Is it useful to add an anticholinergic treatment to beta<sub>2</sub>-adrenergic medication in acute asthma attack? *J Investig Allergol Clin Immunol* 1998;8(1):30–34.

Camargo CA Jr, Weiss ST, Zhang S, Willett WC, Speizer FE. Prospective study of body mass index, weight change, and risk of adult-onset asthma in women. *Arch Intern Med* 1999;159(21):2582–2588.

Camargo CA Jr, Smithline HA, Malice MP, Green SA, Reiss TF. A randomized controlled trial of intravenous montelukast in acute asthma. *Am J Respir Crit Care Med* 2003;167(4):528–533.

Camargo CA Jr, Spooner CH, Rowe BH. Continuous versus intermittent beta-agonists in the treatment of acute asthma. *Cochrane Database Syst Rev* 2003;(4):CD001115.

Campbell F Jones K. Feather vs. non-feather bedding for asthma. *Cochrane Database Syst Rev* 2000;(4):CD002154.

Campbell IA, Douglas JG, Francis RM, Prescott RJ, Reid DM; Research Committee of the British Thoracic Society. Five year study of etidronate and/or calcium as prevention and treatment for osteoporosis and fractures in patients with asthma receiving long term oral and/or inhaled glucocorticoids. *Thorax* 2004;59(9):761–768.

Cardinale F, de Benedictis FM, Muggeo V, Giordano P, Loffredo MS, Iacoviello G, Armenio L. Exhaled nitric oxide, total serum IgE and allergic sensitization in childhood asthma and allergic rhinitis. *Pediatr Allergy Immunol* 2005;16(3):236–242.

Carey AL, Beaver K, Luker K, Campbell M, Woodcock A. Involvement in treatment decisions: what do adults with asthma want and what do they get? Results of a cross sectional survey. *Thorax* 2005;60(3):199–205.

Carl JC, Kercsmar CM. Management of acute pediatric asthma. *Curr Allergy Asthma Rep* 2002;2(6):468–476.

Carl JC, Myers TR, Kirchner HL, Kercsmar CM. Comparison of racemic albuterol and levalbuterol for treatment of acute asthma. *J Pediatr* 2003;143(6):731–736.

Carpagnano GE, Barnes PJ, Francis J, Wilson N, Bush A, Kharitonov SA. Breath condensate pH in children with cystic fibrosis and asthma: a new noninvasive marker of airway inflammation? *Chest* 2004;125(6):2005–2010.

Carpagnano GE, Foschino Barbaro MP, Resta O, Gramiccioni E, Valerio NV, Bracciale P, Valerio G. Exhaled markers in the monitoring of airways inflammation and its response to steroid's treatment in mild persistent asthma. *Eur J Pharmacol* 2005;519(1–2):175–181.

Carranza Rosenzweig JR, Edwards L, Lincourt W, Dorinsky P, ZuWallack RL. The relationship between health-related quality of life, lung function and daily symptoms in patients with persistent asthma. *Respir Med* 2004;98(12):1157–1165.

Carroll CL, Sekaran AK, Lerer TJ, Schramm CM. A modified pulmonary index score with predictive value for pediatric asthma exacerbations. *Ann Allergy Asthma Immunol* 2005;94(3):355–359.

Carter MC, Perzanowski MS, Raymond A, Platts-Mills TA. Home intervention in the treatment of asthma among inner-city children. *J Allergy Clin Immunol* 2001;108(5):732–737.

Carter PM, Peterson EL, Ownby DR, Zoratti EM, Johnson CC. Relationship of house-dust mite allergen exposure in children's bedrooms in infancy to bronchial hyperresponsiveness and asthma diagnosis by age 6 to 7. *Ann Allergy Asthma Immunol* 2003;90(1):41–44.

Casale TB, Nelson HS, Stricker WE, Raff H, Newman KB. Suppression of hypothalamic-pituitary-adrenal axis activity with inhaled flunisolide and fluticasone propionate in adult asthma patients. *Ann Allergy Asthma Immunol* 2001;87(5):379–385.

Casale TB, Nelson HS, Kemp J, Parasuraman B, Uryniak T, Liljas B. Budesonide Turbuhaler delivered once daily improves health-related quality of life and maintains improvements with a stepped-down dose in adults with mild to moderate asthma. *Ann Allergy Asthma Immunol* 2003;90(3):323–330.

Casas A, Gomez FP, Dahlen B, Roca J, Barbera JA, Dahlen SE, Rodriguez-Roisin R. Leukotriene D4-induced hypoxaemia in asthma is mediated by the cys-leukotriene 1 receptor. *Eur Respir J* 2005;26(3):442–448.

Cassino C, Berger KI, Goldring RM, Norman RG, Kammerman S, Ciotoli C, Reibman J. Duration of asthma and physiologic outcomes in elderly nonsmokers. *Am J Respir Crit Care Med* 2000;162(4 Pt 1):1423–1428.

Castes M, Hagel I, Palenque M, Canelones P, Corao A, Lynch NR. Immunological changes associated with clinical improvement of asthmatic children subjected to psychosocial intervention. *Brain Behav Immun* 1999;13(1):1–13.

Castro-Rodriguez JA, Holberg CJ, Morgan WJ, Wright AL, Martinez FD. Increased incidence of asthmalike symptoms in girls who become overweight or obese during the school years. *Am J Respir Crit Care Med* 2001;163(6):1344–1349.

Castro-Rodriguez JA, Rodrigo GJ. Beta-agonists through metered-dose inhaler with valved holding chamber versus nebulizer for acute exacerbation of wheezing or asthma in children under 5 years of age: a systematic review with meta-analysis. *J Pediatr* 2004;145(2):172–177.

Castro M, Schechtman KB, Halstead J, Bloomberg G. Risk factors for asthma morbidity and mortality in a large metropolitan city. *J Asthma* 2001;38(8):625–635.

Castro M, Zimmermann NA, Crocker S, Bradley J, Leven C, Schechtman KB. Asthma intervention program prevents readmissions in high healthcare users. *Am J Respir Crit Care Med* 2003;168(9):1095–1099.

Castro M, Bloch SR, Jenkerson MV, DeMartino S, Hamilos DL, Cochran RB, Zhang XE, Wang H, Bradley JP, Schechtman KB, et al. Asthma exacerbations after glucocorticoid withdrawal reflects T cell recruitment to the airway. *Am J Respir Crit Care Med* 2004;169(7):842–849.

Cates CC, Bara A, Crilly JA, Rowe BH. Holding chambers versus nebulisers for beta-agonist treatment of acute asthma. *Cochrane Database Syst Rev* 2003;(3):CD000052.

Cates CJ, Jefferson TO, Bara AI, Rowe BH. Vaccines for preventing influenza in people with asthma. *Cochrane Database Syst Rev* 2000;(2):CD000364.

Cates CJ, Jefferson TO, Bara AI, Rowe BH. Vaccines for preventing influenza in people with asthma (Cochrane Review). *Cochrane Database Syst Rev* 2000;(4):CD000364.

Cazzola M, Centanni S, Boveri B, Di Marco F, Santus P, Matera MG, Allegra L. Comparison of the bronchodilating effect of salmeterol and zafirlukast in combination with that of their use as single treatments in asthma and chronic obstructive pulmonary disease. *Respiration* 2001;68(5):452–459.

Cazzola M, Grella E, Matera MG, Mazzarella G, Marsico SA. Onset of action following formoterol Turbuhaler and salbutamol pMDI in reversible chronic airway obstruction. *Pulm Pharmacol Ther* 2002;15(2):97–102.

Celedon JC, Litonjua AA, Ryan L, Platts-Mills T, Weiss ST, Gold DR. Exposure to cat allergen, maternal history of asthma, and wheezing in first 5 years of life. *Lancet* 2002;360(9335):781–782.

Celiker V, Basgul E, Karakaya G, Oguzalp H, Bozkurt B, Kalyoncu AF. General anesthesia and postoperative pain management in analgesic intolerant patients with/without asthma: is it safe? *Allergol Immunopathol (Madr)* 2004;32(2):64–68.

Centanni S, Santus P, Casanova F, Di Marco F, Brazzola G, Canonica GW. Evaluation of the effects of zafirlukast 40 mg b.i.d. in addition to preexisting therapy of high-dose inhaled steroids on symptomatic patients with reversible respiratory obstruction: preliminary data. *Drugs Exp Clin Res* 2000;26(4):133–138.

Ceriana P, Navalesi P, Rampulla C, Prinianakis G, Nava S. Use of bronchodilators during non-invasive mechanical ventilation. *Monaldi Arch Chest Dis* 2003;59(2):123–127.

Ceylan E, Gencer M, Aksoy S. Addition of formoterol or montelukast to low-dose budesonide: an efficacy comparison in short- and long-term asthma control. *Respiration* 2004;71(6):594–601.

Chalmers GW, Macleod KJ, Little SA, Thomson LJ, McSharry CP, Thomson NC. Influence of cigarette smoking on inhaled corticosteroid treatment in mild asthma. *Thorax* 2002;57(3):226–230.

Chalut DS, Ducharme FM, Davis GM. The Preschool Respiratory Assessment Measure (PRAM): a responsive index of acute asthma severity. *J Pediatr* 2000;137(6):762–768.

Cham GW, Tan WP, Earnest A, Soh CH. Clinical predictors of acute respiratory acidosis during exacerbation of asthma and chronic obstructive pulmonary disease. *Eur J Emerg Med* 2002;9(3):225–232.

Chambers CV, Markson L, Diamond JJ, Lasch L, Berger M. Health beliefs and compliance with inhaled corticosteroids by asthmatic patients in primary care practices. *Respir Med* 1999;93(2):88–94.

Chan DS, Callahan CW, Moreno C. Multidisciplinary education and management program for children with asthma. *Am J Health Syst Pharm* 2001;58(15):1413–1417.

Chan DS, Callahan CW, Sheets SJ, Moreno CN, Malone FJ. An Internet-based store-and-forward video home telehealth system for improving asthma outcomes in children. *Am J Health Syst Pharm* 2003;60(19):1976–1981.

Chan JS, Cowie RL, Lazarenko GC, Little C, Scott S, Ford GT. Comparison of intramuscular betamethasone and oral prednisone in the prevention of relapse of acute asthma. *Can Respir J* 2001;8(3):147–152.

Chandra A, Shim C, Cohen HW, Chung V, Maggiore D, Mani K, Dhuper S. Regular vs ad-lib albuterol for patients hospitalized with acute asthma. *Chest* 2005;128(3):1115–1120.

Chandra P, Paliwal L, Lodha R, Kabra SK. Comparison of terbutaline and salbutamol inhalation in children with mild or moderate acute exacerbation of asthma. *Indian J Pediatr* 2004;71(11):961–963.

Chandra RK. Five-year follow-up of high-risk infants with family history of allergy who were exclusively breast-fed or fed partial whey hydrolysate, soy, and conventional cow's milk formulas. *J Pediatr Gastroenterol Nutr* 1997;24(4):380–388.

Chanez P, Karlstrom R, Godard P. High or standard initial dose of budesonide to control mild-to-moderate asthma? *Eur Respir J* 2001;17(5):856–862.

Chang AB, Harrhy VA, Simpson J, Masters IB, Gibson PG. Cough, airway inflammation, and mild asthma exacerbation. *Arch Dis Child* 2002;86(4):270–275.

- Chapman KR, Patel P, D'Urzo AD, Alexander M, Mehra S, Oedekoven C, Engelstatter R, Boulet LP. Maintenance of asthma control by once-daily inhaled ciclesonide in adults with persistent asthma. *Allergy* 2005;60(3):330–337.
- Charrois T, Newman S, Sin D, Senthilselvan A, Tsuyuki RT. Improving asthma symptom control in rural communities: the design of the Better Respiratory Education and Asthma Treatment in Hinton and Edson study. *Control Clin Trials* 2004;25(5):502–514.
- Chatmongkolchart S, Schettino GP, Dillman C, Kacmarek RM, Hess DR. In vitro evaluation of aerosol bronchodilator delivery during noninvasive positive pressure ventilation: effect of ventilator settings and nebulizer position. *Crit Care Med* 2002;30(11):2515–2519.
- Chaudhuri R, Livingston E, McMahon AD, Thomson L, Borland W, Thomson NC. Cigarette smoking impairs the therapeutic response to oral corticosteroids in chronic asthma. *Am J Respir Crit Care Med* 2003;168(11):1308–1311.
- Chavasse RJ, Bastian-Lee Y, Richter H, Hilliard T, Seddon P. Persistent wheezing in infants with an atopic tendency responds to inhaled fluticasone. *Arch Dis Child* 2001;85(2):143–148.
- Cheer SM, Warner GT, Easthope SE. Formoterol delivered by Turbuhaler: in pediatric asthma. *Paediatr Drugs* 2003;5(1):63–68.
- Chen E, Bloomberg GR, Fisher EB Jr, Strunk RC. Predictors of repeat hospitalizations in children with asthma: the role of psychosocial and socioenvironmental factors. *Health Psychol* 2003;22(1):12–18.
- Chen Y, Dales R, Stewart P, Johansen H, Scott G, Taylor G. Hospital readmissions for asthma in children and young adults in Canada. *Pediatr Pulmonol* 2003;36(1):22–26.
- Chen Y, Stewart P, Dales R, Johansen H, Scott G, Taylor G. Ecological measures of socioeconomic status and hospital readmissions for asthma among Canadian adults. *Respir Med* 2004;98(5):446–453.
- Chen Y, Rennie DC, Lockinger LA, Dosman JA. Gender, environmental tobacco smoke, and pulmonary function in rural children and adolescents: the Humboldt study. *J Agric Saf Health* 2005;11(2):167–173.
- Cheng NG, Browne GJ, Lam LT, Yeoh R, Oomens M. Spacer compliance after discharge following a mild to moderate asthma attack. *Arch Dis Child* 2002;87(4):302–305.
- Chernoff RG, Ireys HT, DeVet KA, Kim YJ. A randomized, controlled trial of a community-based support program for families of children with chronic illness: pediatric outcomes. *Arch Pediatr Adolesc Med* 2002;156(6):533–539.
- Chesnutt MS. Management of asthma exacerbations. *Clin Cornerstone* 1998;1(2):39–56.
- Chesnutt MS. Management of asthma exacerbations. *Clin Cornerstone* 2002;4(6):1–17.
- Cheuk DK, Chau TC, Lee SL. A meta-analysis on intravenous magnesium sulphate for treating acute asthma. *Arch Dis Child* 2005;90(1):74–77.

Chew FT, Teo J, Quak SH, Connett GJ, Lee BW. Presence of domestic pets and respiratory symptoms in asthmatic children. *Ann Acad Med Singapore* 1997;26(3):294–298.

Chew FT, Goh DY, Ooi BC, Saharom R, Hui JK, Lee BW. Association of ambient air-pollution levels with acute asthma exacerbation among children in Singapore. *Allergy* 1999;54(4):320–329.

Chey T, Jalaludin B, Hanson R, Leeder S. Validation of a predictive model for asthma admission in children: how accurate is it for predicting admissions? *J Clin Epidemiol* 1999;52(12):1157–1163.

Chhabra SK, Ojha UC. Late asthmatic response in exercise-induced asthma. *Ann Allergy Asthma Immunol* 1998;80(4):323–327.

Chhabra SK, Pandey KK. Comparison of acute bronchodilator effects of inhaled ipratropium bromide and salbutamol in bronchial asthma. *J Asthma* 2002;39(5):375–381.

Chiang LC, Huang JL, Yeh KW, Lu CM. Effects of a self-management asthma educational program in Taiwan based on PRECEDE-PROCEED model for parents with asthmatic children. *J Asthma* 2004;41(2):205–215.

Chiang VW, Burns JP, Rifai N, Lipshultz SE, Adams MJ, Weiner DL. Cardiac toxicity of intravenous terbutaline for the treatment of severe asthma in children: a prospective assessment. *J Pediatr* 2000;137(1):73–77.

Chien JW, Ciufo R, Novak R, Skowronski M, Nelson J, Coreno A, McFadden ER Jr. Uncontrolled oxygen administration and respiratory failure in acute asthma. *Chest* 2000;117(3):728–733.

Childhood Asthma Management Program Research Group (CAMP). Long-term effects of budesonide or nedocromil in children with asthma. *N Engl J Med* 2000;343(15):1054–1063.

Chinn S, Rona RJ. Can the increase in body mass index explain the rising trend in asthma in children? *Thorax* 2001;56(11):845–850.

Chipps BE, Chipps DR. A review of the role of inhaled corticosteroids in the treatment of acute asthma. *Clin Pediatr (Phila)* 2001;40(4):185–189.

Chipps BE, Schnepp CM, Briscoe M. Budesonide inhalation suspension reduces the need for emergency intervention in pediatric asthma: a named-patient case series. *J Asthma* 2003;40(8):895–900.

Chiu CY, Wong KS, Huang JL. Paradoxical vocal cord adduction mimicking as acute asthma in a pediatric patient. *Asian Pac J Allergy Immunol* 2001;19(1):55–58.

Choi IS, Koh YI, Lim H. Peak expiratory flow rate underestimates severity of airflow obstruction in acute asthma. *Korean J Intern Med* 2002;17(3):174–179.

Choi JH, Park HS, Oh HB, Lee JH, Suh YJ, Park CS, Shin HD. Leukotriene-related gene polymorphisms in ASA-intolerant asthma: an association with a haplotype of 5-lipoxygenase. *Hum Genet* 2004;114(4):337–344.

Choi SY, Sohn MH, Yum HY, Kwon BC, Kim KE. Correlation between inhalant allergen-specific IgE and pulmonary function in children with asthma. *Pediatr Pulmonol* 2005;39(2):150–155.

Chopra N, Williams M, Rimmer M, Kahl L, Jenkins M. Salmeterol HFA is as effective as salmeterol CFC in children and adults with persistent asthma. *Respir Med* 2005;99(Suppl A):S1–S10.

Choudhry S, Ung N, Avila PC, Ziv E, Nazario S, Casal J, Torres A, Gorman JD, Salari K, Rodriguez-Santana JR, et al. Pharmacogenetic differences in response to albuterol between Puerto Ricans and Mexicans with asthma. *Am J Respir Crit Care Med* 2005;171(6):563–570.

Christakis DA, Mell L, Koepsell TD, Zimmerman FJ, Connell FA. Association of lower continuity of care with greater risk of emergency department use and hospitalization in children. *Pediatrics* 2001;107(3):524–529.

Christian VJ, Prasse A, Naya I, Summerton L, Harris A. Zafirlukast improves asthma control in patients receiving high-dose inhaled corticosteroids. *Am J Respir Crit Care Med* 2000;162(2 Pt 1):578–585.

Christiansen SC, Martin SB, Schleicher NC, Koziol JA, Mathews KP, Zuraw BL. Evaluation of a school-based asthma education program for inner-city children. *J Allergy Clin Immunol* 1997;100(5):613–617.

Christodoulopoulos P, Leung DY, Elliott MW, Hogg JC, Muro S, Toda M, Laberge S, Hamid QA. Increased number of glucocorticoid receptor-beta-expressing cells in the airways in fatal asthma. *J Allergy Clin Immunol* 2000;106(3):479–484.

Chuchalin A, Kasl M, Bengtsson T, Nihlen U, Rosenborg J. Formoterol used as needed in patients with intermittent or mild persistent asthma. *Respir Med* 2005;99(4):461–470.

Chuchalin AG, Svensson K, Stahl E, Ovcharenko SI, Goriachkina LA, Sidorenko IV, Tsoi AN. A health-related quality-of-life comparison of formoterol (Oxis) Turbuhaler plus budesonide (Pulmicort) Turbuhaler with budesonide Turbuhaler alone and noncorticosteroid treatment in asthma: a randomized clinical study in Russia. *Respiration* 2002;69(5):427–433.

Chuchalin AG, Manjra AI, Rozinova NN, Skopkova O, Cioppa GD, Till D, Kaiser G, Fashola T, Kottakis J. Formoterol delivered via a new multi-dose dry powder inhaler (Certihaler) is as effective and well tolerated as the formoterol dry powder inhaler (Aerolizer) in children with persistent asthma. *J Aerosol Med* 2005;18(1):63–73.

Chuffart AA, Sennhauser FH, Wildhaber JH. Factors affecting the efficiency of aerosol therapy with pressurised metered-dose inhalers through plastic spacers. *Swiss Med Wkly* 2001;131(1–2):14–18.

Chukwu C, Okpapi J, Ige MO, Obodo JO. Efficacy and safety of Zafirlukast ('Accolate') in the management of patients with mild-to-moderate asthma. *West Afr J Med* 2000;19(2):111–119.

Chulada PC, Arbes SJ Jr, Dunson D, Zeldin DC. Breast-feeding and the prevalence of asthma and wheeze in children: analyses from the Third National Health and Nutrition Examination Survey, 1988–1994. *J Allergy Clin Immunol* 2003;111(2):328–336.

Ciarallo L, Brousseau D, Reinert S. Higher-dose intravenous magnesium therapy for children with moderate to severe acute asthma. *Arch Pediatr Adolesc Med* 2000;154(10):979–983.

Cibella F, Cuttitta G. Nocturnal asthma and gastroesophageal reflux. *Am J Med* 2001;111(Suppl 8A):31S–36S.

Ciccolella DE, Brennan K, Kelsen SG, Criner GJ. Dose-response characteristics of nebulized albuterol in the treatment of acutely ill, hospitalized asthmatics. *J Asthma* 1999;36(6):539–546.

Cicutto L, Murphy S, Coutts D, O'Rourke J, Lang G, Chapman C, Coates P. Breaking the access barrier: evaluating an asthma center's efforts to provide education to children with asthma in schools. *Chest* 2005;128(4):1928–1935.

Cicutto LC, Llewellyn-Thomas HA, Geerts WH. Physicians' approaches to providing asthma education to patients and the level of patient involvement in management decisions. *J Asthma* 1999;36(5):427–439.

Cicutto LC, Llewellyn-Thomas HA, Geerts WH. The management of asthma: a case-scenario-based survey of family physicians and pulmonary specialists. *J Asthma* 2000;37(3):235–246.

Ciftci TU, Ciftci B, Guven SF, Kokturk O, Turktas H. Effect of nasal continuous positive airway pressure in uncontrolled nocturnal asthmatic patients with obstructive sleep apnea syndrome. *Respir Med* 2005;99(5):529–534.

Ciprandi G, Ricca V, Tosca M, Landi M, Passalacqua G, Canonica GW. Continuous antihistamine treatment controls allergic inflammation and reduces respiratory morbidity in children with mite allergy. *Allergy* 1999;54(4):358–365.

Ciprandi G, Tosca MA, Milanese M, Schenone G, Ricca V. Antihistamines added to an antileukotriene in treating seasonal allergic rhinitis: histamine and leukotriene antagonism. *Allerg Immunol (Paris)* 2004;36(2):67–70, 72.

Clark CE, Coote JM, Silver DA, Halpin DM. Asthma after childhood pneumonia: six year follow up study. *BMJ* 2000;320(7248):1514–1516.

Clark NM, Gong M, Schork MA, Evans D, Roloff D, Hurwitz M, Maiman L, Mellins RB. Impact of education for physicians on patient outcomes. *Pediatrics* 1998;101(5):831–836.

Clark NM, Gong M, Schork MA, Kaciroti N, Evans D, Roloff D, Hurwitz M, Maiman LA, Mellins RB. Long-term effects of asthma education for physicians on patient satisfaction and use of health services. *Eur Respir J* 2000;16(1):15–21.

Clark NM, Brown R, Joseph CL, Anderson EW, Liu M, Valerio MA. Effects of a comprehensive school-based asthma program on symptoms, parent management, grades, and absenteeism. *Chest* 2004;125(5):1674–1679.

Cloosterman SG, Schermer TR, Bijl-Hofland ID, Van Der Heide S, Brunekreef B, van den Elshout FJ, van Herwaarden CL, Van Schayck CP. Effects of house dust mite avoidance measures on Der p 1 concentrations and clinical condition of mild adult house

dust mite-allergic asthmatic patients, using no inhaled steroids. *Clin Exp Allergy* 1999;29(10):1336–1346.

Cloosterman SG, Bijl-Hofland ID, van Herwaarden CL, Akkermans RP, van den Elshout FJ, Folgering HT, Van Schayck CP. A placebo-controlled clinical trial of regular monotherapy with short-acting and long-acting beta(2)-agonists in allergic asthmatic patients. *Chest* 2001;119(5):1306–1315.

Cloutier MM, Wakefield DB, Carlisle PS, Bailit HL, Hall CB. The effect of Easy Breathing on asthma management and knowledge. *Arch Pediatr Adolesc Med* 2002;156(10):1045–1051.

Cloutier MM, Hall CB, Wakefield DB, Bailit H. Use of asthma guidelines by primary care providers to reduce hospitalizations and emergency department visits in poor, minority, urban children. *J Pediatr* 2005;146(5):591–597.

Cluley S, Cochrane GM. Psychological disorder in asthma is associated with poor control and poor adherence to inhaled steroids. *Respir Med* 2001;95(1):37–39.

Cobb DB, Abbott CL, Watson WA, Fernandez MC. High-dose montelukast exposures in a 3-year-old and a 5-year-old child. *Vet Hum Toxicol* 2002;44(2):91–92.

Cockcroft DW, Davis BE, Boulet LP, Deschesnes F, Gauvreau GM, O'Byrne PM, Watson RM. The links between allergen skin test sensitivity, airway responsiveness and airway response to allergen. *Allergy* 2005;60(1):56–59.

Cohen L, Castro M. The role of viral respiratory infections in the pathogenesis and exacerbation of asthma. *Semin Respir Infect* 2003;18(1):3–8.

Cohen NH, Eigen H, Shaughnessy TE. Status asthmaticus. *Crit Care Clin* 1997;13(3):459–476.

Cohn JR, Sataloff RT, Branton C. Response of asthma-related voice dysfunction to allergen immunotherapy: a case report of confirmation by methacholine challenge. *J Voice* 2001;15(4):558–560.

Cohn RD, Arbes SJ Jr, Yin M, Jaramillo R, Zeldin DC. National prevalence and exposure risk for mouse allergen in US households. *J Allergy Clin Immunol* 2004;113(6):1167–1171.

Cole JC, Ownby DR, Havstad SL, Peterson EL. Family history, dust mite exposure in early childhood, and risk for pediatric atopy and asthma. *J Allergy Clin Immunol* 2004;114(1):105–110.

Colland VT, Essen-Zandvliet LE, Lans C, Denteneer A, Westers P, Brackel HJ. Poor adherence to self-medication instructions in children with asthma and their parents. *Patient Educ Couns* 2004;55(3):416–421.

Colon-Semidey AJ, Marshik P, Crowley M, Katz R, Kelly HW. Correlation between reversibility of airway obstruction and exhaled nitric oxide levels in children with stable bronchial asthma. *Pediatr Pulmonol* 2000;30(5):385–392.

Comino E, Zwar N, Harris M. Management of children after presenting to hospital with acute asthma but not requiring admission. *Aust Fam Physician* 2002;31(5):494–496.

- Comino EJ, Bauman A, Mitchell CA, Ruffin RE, Antic R, Zimmerman PV, Gutch RC. The Australian National Asthma Campaign: effects of public education activities based on mass media. *Am J Prev Med* 1997;13(4):251–256.
- Connolly CK, Mamun M, Alcock SM, Prescott RJ. The Darlington and Northallerton Prospective Asthma Study: best function predicts mortality during the first 10 years. *Respir Med* 1998;92(11):1274–1280.
- Connolly CK, Alcock SM, Prescott RJ. Mortality in asthmatics over 15 yrs: a dynamic cohort study from 1983–1998. *Eur Respir J* 2002;19(4):593–598.
- Conti G, Costa R, Polidori L, Liberati Q, Pengue L, de Berardinis GM. Acute asthma attack: severity criteria. *Minerva Anestesiol* 2003;69(5):338–341.
- Convery RP, Leitch DN, Bromly C, Ward RJ, Bartlett G, Hendrick DJ. Effect of inhaled fluticasone propionate on airway responsiveness in treatment-naïve individuals—a lesser benefit in females. *Eur Respir J* 2000;15(1):19–24.
- Cook PJ, Davies P, Tunnicliffe W, Ayres JG, Honeybourne D, Wise R. Chlamydia pneumoniae and asthma. *Thorax* 1998;53(4):254–259.
- Cooper S, Oborne J, Newton S, Harrison V, Thompson CJ, Lewis S, Tattersfield A. Effect of two breathing exercises (Buteyko and pranayama) in asthma: a randomised controlled trial. *Thorax* 2003;58(8):674–679.
- Corbridge SJ, Corbridge TC. Severe exacerbations of asthma. *Crit Care Nurs Q* 2004;27(3):207–228.
- Cordina M, McElnay JC, Hughes CM. Assessment of a community pharmacy-based program for patients with asthma. *Pharmacotherapy* 2001;21(10):1196–1203.
- Coreno A, Skowronski M, Kotaru C, McFadden ER Jr. Comparative effects of long-acting beta<sub>2</sub>-agonists, leukotriene receptor antagonists, and a 5-lipoxygenase inhibitor on exercise-induced asthma. *J Allergy Clin Immunol* 2000;106(3):500–506.
- Corradi M, Montuschi P, Donnelly LE, Pesci A, Kharitonov SA, Barnes PJ. Increased nitrosothiols in exhaled breath condensate in inflammatory airway diseases. *Am J Respir Crit Care Med* 2001;163(4):854–858.
- Corradi M, Folesani G, Andreoli R, Manini P, Bodini A, Piacentini G, Carraro S, Zanconato S, Baraldi E. Aldehydes and glutathione in exhaled breath condensate of children with asthma exacerbation. *Am J Respir Crit Care Med* 2003;167(3):395–399.
- Corren J, Spector S, Fuller L, Minkwitz M, Mezzanotte W. Effects of zafirlukast upon clinical, physiologic, and inflammatory responses to natural cat allergen exposure. *Ann Allergy Asthma Immunol* 2001;87(3):211–217.
- Corren J, Berkowitz R, Murray JJ, Prenner B. Comparison of once-daily mometasone furoate versus once-daily budesonide in patients with moderate persistent asthma. *Int J Clin Pract* 2003;57(7):567–572.

Corren J, Casale T, Deniz Y, Ashby M. Omalizumab, a recombinant humanized anti-IgE antibody, reduces asthma-related emergency room visits and hospitalizations in patients with allergic asthma. *J Allergy Clin Immunol* 2003;111(1):87–90.

Corren J, Manning BE, Thompson SF, Hennessy S, Strom BL. Rhinitis therapy and the prevention of hospital care for asthma: a case-control study. *J Allergy Clin Immunol* 2004;113(3):415–419.

Coskun S, Yuksel H, Tikiz H, Danahaliloglu S. Standard dose of inhaled albuterol significantly increases QT dispersion compared to low dose of albuterol plus ipratropium bromide therapy in moderate to severe acute asthma attacks in children. *Pediatr Int* 2001;43(6):631–636.

Cote J, Cartier A, Robichaud P, Boutin H, Malo JL, Rouleau M, Fillion A, Lavallee M, Krusky M, Boulet LP. Influence on asthma morbidity of asthma education programs based on self-management plans following treatment optimization. *Am J Respir Crit Care Med* 1997;155(5):1509–1514.

Cote J, Cartier A, Malo JL, Rouleau M, Boulet LP. Compliance with peak expiratory flow monitoring in home management of asthma. *Chest* 1998;113(4):968–972.

Cote J, Cartier A, Robichaud P, Boutin H, Malo JL, Rouleau M, Boulet LP. Influence of asthma education on asthma severity, quality of life and environmental control. *Can Respir J* 2000;7(5):395–400.

Cote J, Bowie DM, Robichaud P, Parent JG, Battisti L, Boulet LP. Evaluation of two different educational interventions for adult patients consulting with an acute asthma exacerbation. *Am J Respir Crit Care Med* 2001;163(6):1415–1419.

Coughlan JL, Gibson PG, Henry RL. Medical treatment for reflux oesophagitis does not consistently improve asthma control: a systematic review. *Thorax* 2001;56(3):198–204.

Cousins MS, Liu Y. Cost savings for a preferred provider organization population with multi-condition disease management: evaluating program impact using predictive modeling with a control group. *Dis Manag* 2003;6(4):207–217.

Couturaud F, Proust A, Frachon I, Dewitte JD, Oger E, Quiot JJ, Leroyer C. Education and self-management: a one-year randomized trial in stable adult asthmatic patients. *J Asthma* 2002;39(6):493–500.

Covar RA, Leung DY, McCormick D, Steelman J, Zeitler P, Spahn JD. Risk factors associated with glucocorticoid-induced adverse effects in children with severe asthma. *J Allergy Clin Immunol* 2000;106(4):651–659.

Covar RA, Szeffler SJ, Martin RJ, Sundstrom DA, Silkoff PE, Murphy J, Young DA, Spahn JD. Relations between exhaled nitric oxide and measures of disease activity among children with mild-to-moderate asthma. *J Pediatr* 2003;142(5):469–475.

Covar RA, Spahn JD, Martin RJ, Silkoff PE, Sundstrom DA, Murphy J, Szeffler SJ. Safety and application of induced sputum analysis in childhood asthma. *J Allergy Clin Immunol* 2004;114(3):575–582.

- Covar RA, Spahn JD, Murphy JR, Szeffler SJ. Progression of asthma measured by lung function in the childhood asthma management program. *Am J Respir Crit Care Med* 2004;170(3):234–241.
- Cowan S, Ernst P, Cartier A, Boulet LP. A population-based evaluation of a regional asthma education centre. *Can Respir J* 2004;11(1):39–44.
- Cowie RL, Revitt SG, Underwood MF, Field SK. The effect of a peak flow-based action plan in the prevention of exacerbations of asthma. *Chest* 1997;112(6):1534–1538.
- Cowie RL, Underwood MF, Revitt SG, Field SK. Predicting emergency department utilization in adults with asthma: a cohort study. *J Asthma* 2001;38(2):179–184.
- Cowie RL, Cicuttu L, Boulet LP. Asthma education and management programs in Canada. *Can Respir J* 2001;8(6):416–420.
- Cowie RL, Underwood MF, Mack S. The impact of asthma management guideline dissemination on the control of asthma in the community. *Can Respir J* 2001;8(Suppl A):41A–45A.
- Cowie RL, Underwood MF, Little CB, Mitchell I, Spier S, Ford GT. Asthma in adolescents: a randomized, controlled trial of an asthma program for adolescents and young adults with severe asthma. *Can Respir J* 2002;9(4):253–259.
- Cowie RL, Underwood MF, Field SK. Inhaled corticosteroid therapy does not control asthma. *Can Respir J* 2004;11(8):555–558.
- Coyle YM, Hynan LS, Gruchalla RS, Anderson RJ. Predictors of short-term clinical response to acute asthma care in adults. *Int J Qual Health Care* 2002;14(1):69–75.
- Coyle YM, Aragaki CC, Hynan LS, Gruchalla RS, Khan DA. Effectiveness of acute asthma care among inner-city adults. *Arch Intern Med* 2003;163(13):1591–1596.
- Craig-McFeely PM, Wilton LV, Soriano JB, Maier WC, Shakir SA. Prospective observational cohort safety study to monitor the introduction of a non-CFC formulation of salbutamol with HFA134a in England. *Int J Clin Pharmacol Ther* 2003;41(2):67–76.
- Craven D, Kercsmar CM, Myers TR, O'riordan MA, Golonka G, Moore S. Ipratropium bromide plus nebulized albuterol for the treatment of hospitalized children with acute asthma. *J Pediatr* 2001;138(1):51–58.
- Creticos P, Knobil K, Edwards LD, Rickard KA, Dorinsky P. Loss of response to treatment with leukotriene receptor antagonists but not inhaled corticosteroids in patients over 50 years of age. *Ann Allergy Asthma Immunol* 2002;88(4):401–409.
- Croft DR, Peterson MW. An evaluation of the quality and contents of asthma education on the World Wide Web. *Chest* 2002;121(4):1301–1307.
- Crombie IK, Wright A, Irvine L, Clark RA, Slane PW. Does passive smoking increase the frequency of health service contacts in children with asthma? *Thorax* 2001;56(1):9–12.

Crompton GK, Sanderson R, Dewar MH, Matusiewicz SP, Ning AC, Jamieson AH, McLean A, Greening AP. Comparison of Pulmicort pMDI plus Nebuhaler and Pulmicort Turbuhaler in asthmatic patients with dysphonia. *Respir Med* 2000;94(5):448–453.

Crystal-Peters J, Neslusan C, Crown WH, Torres A. Treating allergic rhinitis in patients with comorbid asthma: the risk of asthma-related hospitalizations and emergency department visits. *J Allergy Clin Immunol* 2002;109(1):57–62.

Csoma Z, Kharitonov SA, Balint B, Bush A, Wilson NM, Barnes PJ. Increased leukotrienes in exhaled breath condensate in childhood asthma. *Am J Respir Crit Care Med* 2002;166(10):1345–1349.

Csonka P, Kaila M, Laippala P, Kuusela AL, Ashorn P. Wheezing in early life and asthma at school age: predictors of symptom persistence. *Pediatr Allergy Immunol* 2000;11(4):225–229.

Cunningham AF, Johnston SL, Julious SA, Lampe FC, Ward ME. Chronic Chlamydia pneumoniae infection and asthma exacerbations in children. *Eur Respir J* 1998;11(2):345–349.

Cunnington D, Smith N, Steed K, Rosengarten P, Kelly AM, Teichtahl H. Oral versus intravenous corticosteroids in adults hospitalised with acute asthma. *Pulm Pharmacol Ther* 2005;18(3):207–212.

Currie GP, Lee DK, Dempsey OJ, Fowler SJ, Cowan LM, Lipworth BJ. A proof of concept study to evaluate putative benefits of montelukast in moderate persistent asthmatics. *Br J Clin Pharmacol* 2003;55(6):609–615.

Currie GP, Bates CE, Lee DK, Jackson CM, Lipworth BJ. Effects of fluticasone plus salmeterol versus twice the dose of fluticasone in asthmatic patients. *Eur J Clin Pharmacol* 2003;59(1):11–15. Epub March 2003.

Currie GP, Fowler SJ, Lipworth BJ. Dose response of inhaled corticosteroids on bronchial hyperresponsiveness: a meta-analysis. *Ann Allergy Asthma Immunol* 2003;90(2):194–198.

Currie GP, Jackson CM, Lee DK, Lipworth BJ. Allergen sensitization and bronchial hyper-responsiveness to adenosine monophosphate in asthmatic patients. *Clin Exp Allergy* 2003;33(10):1405–1408.

Currie GP, Jackson CM, Lee DK, Lipworth BJ. Determinants of airway hyperresponsiveness in mild asthma. *Ann Allergy Asthma Immunol* 2003;90(5):560–563.

Currie GP, Lee DK, Haggart K, Bates CE, Lipworth BJ. Effects of montelukast on surrogate inflammatory markers in corticosteroid-treated patients with asthma. *Am J Respir Crit Care Med* 2003;167(9):1232–1238.

Currie GP, Stenback S, Lipworth BJ. Effects of fluticasone vs. fluticasone/salmeterol on airway calibre and airway hyperresponsiveness in mild persistent asthma. *Br J Clin Pharmacol* 2003;56(1):11–17.

Currie GP, Syme-Grant NJ, McFarlane LC, Carey FA, Lipworth BJ. Effects of low dose fluticasone/salmeterol combination on surrogate inflammatory markers in moderate persistent asthma. *Allergy* 2003;58(7):602–607.

Custovic A, Simpson A, Woodcock A. Importance of indoor allergens in the induction of allergy and elicitation of allergic disease. *Allergy* 1998;53(48 Suppl):115–120.

Custovic A, Chapman M. Risk levels for mite allergens. Are they meaningful? *Allergy* 1998;53(48 Suppl):71–76.

Custovic A, Simpson A, Pahdi H, Green RM, Chapman MD, Woodcock A. Distribution, aerodynamic characteristics, and removal of the major cat allergen Fel d 1 in British homes. *Thorax* 1998;53(1):33–38.

Custovic A, Simpson BM, Simpson A, Hallam C, Craven M, Brutsche M, Woodcock A. Manchester Asthma and Allergy Study: low-allergen environment can be achieved and maintained during pregnancy and in early life. *J Allergy Clin Immunol* 2000;105(2 Pt 1):252–258.

Custovic A, Simpson BM, Simpson A, Kissen P, Woodcock A; NAC Manchester Asthma and Allergy Study Group. Effect of environmental manipulation in pregnancy and early life on respiratory symptoms and atopy during first year of life: a randomised trial. *Lancet* 2001;358(9277):188–193.

Cuttitta G, Cibella F, Bellia V, Grassi V, Cossi S, Buccieri S, Bonsignore G. Changes in FVC during methacholine-induced bronchoconstriction in elderly patients with asthma: bronchial hyperresponsiveness and aging. *Chest* 2001;119(6):1685–1690.

Cyduka RK, McFadden ER Jr, Emerman CL, Sivinski LD, Pisanelli W, Rimm AA. Patterns of hospitalization in elderly patients with asthma and chronic obstructive pulmonary disease. *Am J Respir Crit Care Med* 1997;156(6):1807–1812.

Cyduka RK, Emerman CL, Schreiber D, Molander KH, Woodruff PG, Camargo CA Jr. Acute asthma among pregnant women presenting to the emergency department. *Am J Respir Crit Care Med* 1999;160(3):887–892.

Cyduka RK, Emerman CL, Rowe BH, Clark S, Woodruff PG, Singh AK, Camargo CA Jr. Differences between men and women in reporting of symptoms during an asthma exacerbation. *Ann Emerg Med* 2001;38(2):123–128.

Cyduka RK, McFadden ER, Sarver JH, Emerman CL. Comparison of single 7.5-mg dose treatment vs sequential multidose 2.5-mg treatments with nebulized albuterol in the treatment of acute asthma. *Chest* 2002;122(6):1982–1987.

Cylly A, Kara A, Ozdemir T, Oguş C, Gulkesen KH. Effects of oral montelukast on airway function in acute asthma. *Respir Med* 2003;97(5):533–536.

Dahl R, Larsen BB, Venge P. Effect of long-term treatment with inhaled budesonide or theophylline on lung function, airway reactivity and asthma symptoms. *Respir Med* 2002;96(6):432–438.

Dahlen B, Nizankowska E, Szczechlik A, Zetterstrom O, Bochenek G, Kumlin M, Mastalerz L, Pinis G, Swanson LJ, Boodhoo TI, et al. Benefits from adding the 5-lipoxygenase inhibitor zileuton to conventional therapy in aspirin-intolerant asthmatics. *Am J Respir Crit Care Med* 1998;157(4 Pt 1):1187–1194.

Dahlen B, O'Byrne PM, Watson RM, Roquet A, Larsen F, Inman MD. The reproducibility and sample size requirements of exercise-induced bronchoconstriction measurements. *Eur Respir J* 2001;17(4):581–588.

Dahlen B, Roquet A, Inman MD, Karlsson O, Naya I, Anstren G, O'Byrne PM, Dahlen SE. Influence of zafirlukast and loratadine on exercise-induced bronchoconstriction. *J Allergy Clin Immunol* 2002;109(5):789–793.

Dahlen SE, Malmstrom K, Nizankowska E, Dahlen B, Kuna P, Kowalski M, Lumry WR, Picado C, Stevenson DD, Bousquet J, et al. Improvement of aspirin-intolerant asthma by montelukast, a leukotriene antagonist: a randomized, double-blind, placebo-controlled trial. *Am J Respir Crit Care Med* 2002;165(1):9–14.

Dal Negro R, Micheletto C, Tognella S, Turco P, Rossetti A, Cantini L. Assessment of inhaled BDP-dose dependency of exhaled nitric oxide and local and serum eosinophilic markers in steroids-naïve nonatopic asthmatics. *Allergy* 2003;58(10):1018–1022.

Dales RE, Cakmak S, Burnett RT, Judek S, Coates F, Brook JR. Influence of ambient fungal spores on emergency visits for asthma to a regional children's hospital. *Am J Respir Crit Care Med* 2000;162(6):2087–2090.

Dales RE, Choi B, Chen Y, Tang M. Influence of family income on hospital visits for asthma among Canadian school children. *Thorax* 2002;57(6):513–517.

Dales RE, Cakmak S, Judek S, Dann T, Coates F, Brook JR, Burnett RT. The role of fungal spores in thunderstorm asthma. *Chest* 2003;123(3):745–750.

Dales RE, Cakmak S, Judek S, Dann T, Coates F, Brook JR, Burnett RT. Influence of outdoor aeroallergens on hospitalization for asthma in Canada. *J Allergy Clin Immunol* 2004;113(2):303–306.

Daley MF, Barrow J, Pearson K, Crane LA, Gao D, Stevenson JM, Berman S, Kempe A. Identification and recall of children with chronic medical conditions for influenza vaccination. *Pediatrics* 2004;113(1 Pt 1):e26–e33.

Daley MF, Beaty BL, Barrow J, Pearson K, Crane LA, Berman S, Kempe A. Missed opportunities for influenza vaccination in children with chronic medical conditions. *Arch Pediatr Adolesc Med* 2005;159(10):986–991.

Danesch UC. Petasites hybridus (Butterbur root) extract in the treatment of asthma—an open trial. *Altern Med Rev* 2004;9(1):54–62.

Dauletbaev N, Rickmann J, Viel K, Buhl R, Wagner TO, Bargon J. Glutathione in induced sputum of healthy individuals and patients with asthma. *Thorax* 2001;56(1):13–18.

Davenport PW, Kifle Y. Inspiratory resistive load detection in children with life-threatening asthma. *Pediatr Pulmonol* 2001;32(1):44–48.

David WS, Roehr CL, Leatherman JW. EMG findings in acute myopathy with status asthmaticus, steroids and paralytics. Clinical and electrophysiologic correlation. *Electromyogr Clin Neurophysiol* 1998;38(6):371–376.

Davies B, Brooks G, Devoy M. The efficacy and safety of salmeterol compared to theophylline: meta-analysis of nine controlled studies. *Respir Med* 1998;92(2):256–263.

Davies H, Olson L, Gibson P. Methotrexate as a steroid sparing agent for asthma in adults. *Cochrane Database Syst Rev* 2000;(2):CD000391.

Davis BE, Reid JK, Cockcroft DW. Formoterol thrice weekly does not result in the development of tolerance to bronchoprotection. *Can Respir J* 2003;10(1):23–26.

Davis P, Man P, Cave A, McBennett S, Cook D. Use of focus groups to assess the educational needs of the primary care physician for the management of asthma. *Med Educ* 2000;34(12):987–993.

Davis PA, Gold EB, Hackman RM, Stern JS, Gershwin ME. The use of complementary/alternative medicine for the treatment of asthma in the United States. *J Investig Allergol Clin Immunol* 1998;8(2):73–77.

Davis PA, Chang C, Hackman RM, Stern JS, Gershwin ME. Acupuncture in the treatment of asthma: a critical review. *Allergol Immunopathol (Madr)* 1998;26(6):263–271.

Davis RS, Bukstein DA, Luskin AT, Kailin JA, Goodenow G. Changing physician prescribing patterns through problem-based learning: an interactive, teleconference case-based education program and review of problem-based learning. *Ann Allergy Asthma Immunol* 2004;93(3):237–242.

Dawson KP, Van Asperen P, Higgins C, Sharpe C, Davis A. An evaluation of the action plans of children with asthma. *J Paediatr Child Health* 1995;31(1):21–23.

De Alarcon A, Walsh EE, Carper HT, La Russa JB, Evans BA, Rakes GP, Platts-Mills TA, Heymann PW. Detection of IgA and IgG but not IgE antibody to respiratory syncytial virus in nasal washes and sera from infants with wheezing. *J Pediatr* 2001;138(3):311–317.

de Bisschop C, Guenard H, Desnot P, Vergeret J. Reduction of exercise-induced asthma in children by short, repeated warm ups. *Br J Sports Med* 1999;33(2):100–104.

de Blay F, Fourgaut G, Hedelin G, Vervloet D, Michel FB, Godard P, Charpin D, Pauli G. Medical Indoor Environment Counselor (MIEC): role in compliance with advice on mite allergen avoidance and on mite allergen exposure. *Allergy* 2003;58(1):27–33.

de Gouw HW, Hendriks J, Woltman AM, Twiss IM, Sterk PJ. Exhaled nitric oxide (NO) is reduced shortly after bronchoconstriction to direct and indirect stimuli in asthma. *Am J Respir Crit Care Med* 1998;158(1):315–319.

de Kluijver J, Evertse CE, Schrumpf JA, van der Veen H, Zwinderian AH, Hiemstra PS, Rabe KF, Sterk PJ. Asymptomatic worsening of airway inflammation during low-dose allergen exposure in asthma: protection by inhaled steroids. *Am J Respir Crit Care Med* 2002;166(3):294–300.

de Meer G, Toelle BG, Ng K, Tovey E, Marks GB. Presence and timing of cat ownership by age 18 and the effect on atopy and asthma at age 28. *J Allergy Clin Immunol* 2004;113(3):433–438.

de Oliveira MA, Barbiere A, Santos LA, Faresin SM, Fernandes AL. Validation of a simplified quality-of-life questionnaire for socioeconomically deprived asthma patients. *J Asthma* 2005;42(1):41–44.

Delacourt C, Lorino H, Fuhrman C, Herve-Guillot M, Reinert P, Harf A, Housset B. Comparison of the forced oscillation technique and the interrupter technique for assessing airway obstruction and its reversibility in children. *Am J Respir Crit Care Med* 2001;164(6):965–972.

Delacourt C, Dutau G, Lefrancois G, Clerson P. Comparison of the efficacy and safety of nebulized beclometasone dipropionate and budesonide in severe persistent childhood asthma. *Respir Med* 2003;97 Suppl B:S27–S33.

Delaronde S. Using case management to increase antiinflammatory medication use among a managed care population with asthma. *J Asthma* 2002;39(1):55–63.

Delaronde S, Peruccio DL, Bauer BJ. Improving asthma treatment in a managed care population. *Am J Manag Care* 2005;11(6):361–368.

Delcourt C, Cristol JP, Tessier F, Leger CL, Michel F, Papoz L. Risk factors for cortical, nuclear, and posterior subcapsular cataracts: the POLA study. *Pathologies Oculaires Liees a l'Age*. *Am J Epidemiol* 2000;151(5):497–504.

Delfino RJ, Zeiger RS, Seltzer JM, Street DH, Matteucci RM, Anderson PR, Koutrakis P. The effect of outdoor fungal spore concentrations on daily asthma severity. *Environ Health Perspect* 1997;105(6):622–635.

Delfino RJ, Zeiger RS, Seltzer JM, Street DH, McLaren CE. Association of asthma symptoms with peak particulate air pollution and effect modification by anti-inflammatory medication use. *Environ Health Perspect* 2002;110(10):A607–A617.

Delfino RJ, Gong H Jr, Linn WS, Pellizzari ED, Hu Y. Asthma symptoms in Hispanic children and daily ambient exposures to toxic and criteria air pollutants. *Environ Health Perspect* 2003;111(4):647–656.

Delfino RJ, Gong H, Linn WS, Hu Y, Pellizzari ED. Respiratory symptoms and peak expiratory flow in children with asthma in relation to volatile organic compounds in exhaled breath and ambient air. *J Expo Anal Environ Epidemiol* 2003;13(5):348–363.

Delfino RJ, Quintana PJ, Floro J, Gastanaga VM, Samimi BS, Kleinman MT, Liu LJ, Bufalino C, Wu CF, McLaren CE. Association of FEV<sub>1</sub> in asthmatic children with personal and microenvironmental exposure to airborne particulate matter. *Environ Health Perspect* 2004;112(8):932–941.

Delgado-Corcoran C, Kissoon N, Murphy SP, Duckworth LJ. Exhaled nitric oxide reflects asthma severity and asthma control. *Pediatr Crit Care Med* 2004;5(1):48–52.

Delgado A, Chou KJ, Silver EJ, Crain EF. Nebulizers vs metered-dose inhalers with spacers for bronchodilator therapy to treat wheezing in children aged 2 to 24 months in a pediatric emergency department. *Arch Pediatr Adolesc Med* 2003;157(1):76–80.

- Dell SD, Parkin PC, Macarthur C. Childhood asthma admissions: determinants of short stay. *Pediatr Allergy Immunol* 2001;12(6):327–330.
- Dellaripa PF, Wechsler ME, Roth ME, Drazen J. Recurrent panniculitis in a man with asthma receiving treatment with leukotriene-modifying agents. *Mayo Clin Proc* 2000;75(6):643–645.
- Demirkan K, Tolley E, Mastin T, Soberman J, Burbeck J, Self T. Salmeterol administration by metered-dose inhaler alone vs metered-dose inhaler plus valved holding chamber. *Chest* 2000;117(5):1314–1318.
- Demoly P, Allaert FA, Lecasble M, Bousquet J. Validation of the classification of ARIA (allergic rhinitis and its impact on asthma). *Allergy* 2003;58(7):672–675.
- Dempsey OJ, Wilson AM, Sims EJ, Mistry C, Lipworth BJ. Additive bronchoprotective and bronchodilator effects with single doses of salmeterol and montelukast in asthmatic patients receiving inhaled corticosteroids. *Chest* 2000;117(4):950–953.
- Dempsey OJ, Fowler SJ, Wilson A, Kennedy G, Lipworth BJ. Effects of adding either a leukotriene receptor antagonist or low-dose theophylline to a low or medium dose of inhaled corticosteroid in patients with persistent asthma. *Chest* 2002;122(1):151–159.
- Dempsey OJ, Kennedy G, Lipworth BJ. Comparative efficacy and anti-inflammatory profile of once-daily therapy with leukotriene antagonist or low-dose inhaled corticosteroid in patients with mild persistent asthma. *J Allergy Clin Immunol* 2002;109(1):68–74.
- den Otter JJ, Reijnen GM, van den Bosch WJ, Van Schayck CP, Molema J, Van Weel C. Testing bronchial hyper-responsiveness: provocation or peak expiratory flow variability? *Br J Gen Pract* 1997;47(421):487–492.
- Dendukuri N, Blais L, LeLorier J. Inhaled corticosteroids and the risk of diabetes among the elderly. *Br J Clin Pharmacol* 2002;54(1):59–64.
- DeNicola LK, Gayle MO, Blake KV. Drug therapy approaches in the treatment of acute severe asthma in hospitalised children. *Paediatr Drugs* 2001;3(7):509–537.
- Dennis J. Alexander technique for chronic asthma. *Cochrane Database Syst Rev* 2000;(2):CD000995.
- Dennis SM, Sharp SJ, Vickers MR, Frost CD, Crompton GK, Barnes PJ, Lee TH. Regular inhaled salbutamol and asthma control: the TRUST randomised trial. Therapy Working Group of the National Asthma Task Force and the MRC General Practice Research Framework. *Lancet* 2000;355(9216):1675–1679.
- Dennis SM, Altmann DR, Lee TH. Increase in daytime symptoms is a sensitive and specific criterion for predicting corticosteroid-treated exacerbations in a clinical asthma trial. *Clin Exp Allergy* 2005;35(3):308–312.
- Des Roches A, Paradis L, Menardo JL, Bouges S, Daures JP, Bousquet J. Immunotherapy with a standardized Dermatophagoides pteronyssinus extract. VI. Specific immunotherapy prevents the onset of new sensitizations in children. *J Allergy Clin Immunol* 1997;99(4):450–453.

Desnoeck M, Casteels I, Casteels K. Intraocular pressure elevation in a child due to the use of inhalation steroids—a case report. *Bull Soc Belge Ophtalmol* 2001;(280):97–100.

Dessanges JF, Prefaut C, Taylard A, Matran R, Naya I, Compagnon A, Dinh-Xuan AT. The effect of zafirlukast on repetitive exercise-induced bronchoconstriction: the possible role of leukotrienes in exercise-induced refractoriness. *J Allergy Clin Immunol* 1999;104(6):1155–1161.

Devi PR, Kumar L, Singhi SC, Prasad R, Singh M. Intravenous magnesium sulfate in acute severe asthma not responding to conventional therapy. *Indian Pediatr* 1997;34(5):389–397.

Dewar AL, Stewart A, Cogswell JJ, Connell GJ. A randomised controlled trial to assess the relative benefits of large volume spacers and nebulisers to treat acute asthma in hospital. *Arch Dis Child* 1999;80(5):421–423.

Deykin A, Massaro AF, Drazen JM, Israel E. Exhaled nitric oxide as a diagnostic test for asthma: online versus offline techniques and effect of flow rate. *Am J Respir Crit Care Med* 2002;165(12):1597–1601.

Deykin A, Lazarus SC, Fahy JV, Wechsler ME, Boushey HA, Chinchilli VM, Craig TJ, DiMango E, Kraft M, Leone F, et al.; Asthma Clinical Research Network, National Heart, Lung, and Blood Institute/NIH. Sputum eosinophil counts predict asthma control after discontinuation of inhaled corticosteroids. *J Allergy Clin Immunol* 2005;115(4):720–727.

Dharmage S, Bailey M, Raven J, Mitakakis T, Cheng A, Guest D, Rolland J, Forbes A, Thien F, Abramson M, et al. Current indoor allergen levels of fungi and cats, but not house dust mites, influence allergy and asthma in adults with high dust mite exposure. *Am J Respir Crit Care Med* 2001;164(1):65–71.

Dharmage S, Bailey M, Raven J, Abeyawickrama K, Cao D, Guest D, Rolland J, Forbes A, Thien F, Abramson M, et al. Mouldy houses influence symptoms of asthma among atopic individuals. *Clin Exp Allergy* 2002;32(5):714–720.

Dhuper S, Maggiore D, Chung V, Shim C. Profile of near-fatal asthma in an inner-city hospital. *Chest* 2003;124(5):1880–1884.

Di Gioacchino M, Cavallucci E, Di Stefano F, Verna N, Ramondo S, Ciuffreda S, Riccioni G, Boscolo P. Influence of total IgE and seasonal increase of eosinophil cationic protein on bronchial hyperreactivity in asthmatic grass-sensitized farmers. *Allergy* 2000;55(11):1030–1034.

Di Lorenzo G, Pacor ML, Morici G, Drago A, Esposito-Pellitteri M, Candore G, Lo BC, Caruso C. Measurement of inflammatory mediators of eosinophils and lymphocytes in blood in acute asthma: serum levels of ECP influence the bronchodilator response. *Int Arch Allergy Immunol* 2002;127(4):308–315.

Di Rienzo V, Marcucci F, Puccinelli P, Parmiani S, Frati F, Sensi L, Canonica GW, Passalacqua G. Long-lasting effect of sublingual immunotherapy in children with asthma due to house dust mite: a 10-year prospective study. *Clin Exp Allergy* 2003;33(2):206–210.

Diamond SA, Chapman KR. The impact of a nationally coordinated pharmacy-based asthma education intervention. *Can Respir J* 2001;8(4):261–265.

Diaz-Sanchez D, Garcia MP, Wang M, Jyrala M, Saxon A. Nasal challenge with diesel exhaust particles can induce sensitization to a neoallergen in the human mucosa. *J Allergy Clin Immunol* 1999;104(6):1183–1188.

Diaz JE, Dubin R, Gaeta TJ, Pelczar P, Bradley K. Efficacy of atropine sulfate in combination with albuterol in the treatment for acute asthma. *Acad Emerg Med* 1997;4(2):107–113.

Diaz T, Sturm T, Matte T, Bindra M, Lawler K, Findley S, Maylahn C. Medication use among children with asthma in East Harlem. *Pediatrics* 2000;105(6):1188–1193.

Dickinson JW, Whyte GP, McConnell AK, Harries MG. Screening elite winter athletes for exercise induced asthma: a comparison of three challenge methods. *Br J Sports Med* 2006;40(2):179–182.

Dicpinigaitis PV, Dobkin JB, Reichel J. Antitussive effect of the leukotriene receptor antagonist zafirlukast in subjects with cough-variant asthma. *J Asthma* 2002;39(4):291–297.

Diette GB, Markson L, Skinner EA, Nguyen TT, Algatt-Bergstrom P, Wu AW. Nocturnal asthma in children affects school attendance, school performance, and parents' work attendance. *Arch Pediatr Adolesc Med* 2000;154(9):923–928.

Diette GB, Skinner EA, Nguyen TT, Markson L, Clark BD, Wu AW. Comparison of quality of care by specialist and generalist physicians as usual source of asthma care for children. *Pediatrics* 2001;108(2):432–437.

Diette GB, Skinner EA, Markson LE, Algatt-Bergstrom P, Nguyen TT, Clark RD, Wu AW. Consistency of care with national guidelines for children with asthma in managed care. *J Pediatr* 2001;138(1):59–64.

Diette GB, Krishnan JA, Dominici F, Haponik E, Skinner EA, Steinwachs D, Wu AW. Asthma in older patients: factors associated with hospitalization. *Arch Intern Med* 2002;162(10):1123–1132.

Diette GB, Krishnan JA, Wolfenden LL, Skinner EA, Steinwachs DM, Wu AW. Relationship of physician estimate of underlying asthma severity to asthma outcomes. *Ann Allergy Asthma Immunol* 2004;93(6):546–552.

Dijkstra A, Vonk JM, Jongepier H, Koppelman GH, Schouten JP, ten Hacken NH, Timens W, Postma DS. Lung function decline in asthma: association with inhaled corticosteroids, smoking and sex. *Thorax* 2006;61(2):105–110 Epub November 2005.

DiMango EA, Lubetsky H, Austin JH. Assessment of bronchial wall thickening on posteroanterior chest radiographs in acute asthma. *J Asthma* 2002;39(3):255–261.

Dinelli DL, Higgins JC. Case management of asthma for family practice patients: a pilot study. *Mil Med* 2002;167(3):231–234.

Diner B, Brenner B, Camargo CA Jr. Inaccuracy of "personal best" peak expiratory flow rate reported by inner-city patients with acute asthma. *J Asthma* 2001;38(2):127–132.

Dinis PB, Gomes A. Sinusitis and asthma: how do they interrelate in sinus surgery? *Am J Rhinol* 1997;11(6):421–428.

Dixon JB, Chapman L, O'Brien P. Marked improvement in asthma after Lap-Band surgery for morbid obesity. *Obes Surg* 1999;9(4):385–389.

Djukanovic R, Wilson SJ, Kraft M, Jarjour NN, Steel M, Chung KF, Bao W, Fowler-Taylor A, Matthews J, Busse WW, et al. Effects of treatment with anti-immunoglobulin E antibody omalizumab on airway inflammation in allergic asthma. *Am J Respir Crit Care Med* 2004;170(6):583–593. Epub June 2004.

Dockhorn RJ, Baumgartner RA, Leff JA, Noonan M, Vandormael K, Stricker W, Weinland DE, Reiss TF. Comparison of the effects of intravenous and oral montelukast on airway function: a double blind, placebo controlled, three period, crossover study in asthmatic patients. *Thorax* 2000;55(4):260–265.

Dombkowski KJ, Cabana MD, Cohn LM, Gebremariam A, Clark SJ. Geographic variation of asthma quality measures within and between health plans. *Am J Manag Care* 2005;11(12):765–772.

Dombrowski MP, Schatz M, Wise R, Thom EA, Landon M, Mabie W, Newman RB, McNellis D, Hauth JC, Lindheimer M, et al. Randomized trial of inhaled beclomethasone dipropionate versus theophylline for moderate asthma during pregnancy. *Am J Obstet Gynecol* 2004;190(3):737–744.

Dompeling E, Oudesluys-Murphy AM, Janssens HM, Hop W, Brinkman JG, Sukhai RN, de Jongste JC. Randomised controlled study of clinical efficacy of spacer therapy in asthma with regard to electrostatic charge. *Arch Dis Child* 2001;84(2):178–182.

Donoghue AM, Thomas M. Point source sulphur dioxide peaks and hospital presentations for asthma. *Occup Environ Med* 1999;56(4):232–236.

Dorhofer DM, Sigmon ST. Physiological and psychological reactivity in women with asthma: the effects of anxiety and menstrual cycle phase. *Behav Res Ther* 2002;40(1):3–17.

Dorinsky PM, Edwards LD, Yancey SW, Rickard KA. Use of changes in symptoms to predict changes in lung function in assessing the response to asthma therapy. *Clin Ther* 2001;23(5):701–714.

Dotterud LK, Odland JO, Falk ES. Atopic dermatitis and respiratory symptoms in Russian and northern Norwegian school children: a comparison study in two arctic areas and the impact of environmental factors. *J Eur Acad Dermatol Venereol* 2004;18(2):131–136.

Douglass J, Aroni R, Goeman D, Stewart K, Sawyer S, Thien F, Abramson M. A qualitative study of action plans for asthma. *BMJ* 2002;324(7344):1003–1005.

Douma WR, Kerstjens HA, Roos CM, Koeter GH, Postma DS. Changes in peak expiratory flow indices as a proxy for changes in bronchial hyperresponsiveness. Dutch Chronic Non-Specific Lung Disease study group. *Eur Respir J* 2000;16(2):220–225.

Douma WR, Kerstjens HA, de Gooijer A, Overbeek SE, Koeter GH, Postma DS. Initial improvements in lung function and bronchial hyperresponsiveness are maintained during 5 years of treatment with inhaled beclomethasone dipropionate and terbutaline. *Chest* 2002;121(1):151–157.

Douwes J, Zuidhof A, Doeke G, van der Zee SC, Wouters I, Boezen MH, Brunekreef B. (1 $\otimes$ 3)-beta-D-glucan and endotoxin in house dust and peak flow variability in children. *Am J Respir Crit Care Med* 2000;162(4 Pt 1):1348–1354.

Downs SH, Mitakakis TZ, Marks GB, Car NG, Belousova EG, Leuppi JD, Xuan W, Downie SR, Tobias A, Peat JK. Clinical importance of Alternaria exposure in children. *Am J Respir Crit Care Med* 2001;164(3):455–459.

Duarte M, Camargos P. Efficacy and safety of a home-made non-valved spacer for bronchodilator therapy in acute asthma. *Acta Paediatr* 2002;91(9):909–913.

Dubus JC, Oddoze C, Badier M, Guillot C, Bruguerolle B. Possible interaction between exposure to environmental tobacco smoke and therapy in children with asthma. *Clin Sci (Lond)* 1998;95(2):143–149.

Dubus JC, Marguet C, Deschildre A, Mely L, Le Roux P, Brouard J, Huiart L. Local side-effects of inhaled corticosteroids in asthmatic children: influence of drug, dose, age, and device. *Allergy* 2001;56(10):944–948.

Dubus JC, Guillot C, Badier M. Electrostatic charge on spacer devices and salbutamol response in young children. *Int J Pharm* 2003;261(1–2):159–164.

DuBuske LM, Grossman J, Dube LM, Swanson LJ, Lancaster JF. Randomized trial of zileuton in patients with moderate asthma: effect of reduced dosing frequency and amounts on pulmonary function and asthma symptoms. Zileuton Study Group. *Am J Manag Care* 1997;3(4):633–640.

Ducharme FM, Davis GM. Respiratory resistance in the emergency department: a reproducible and responsive measure of asthma severity. *Chest* 1998;113(6):1566–1572.

Ducharme FM Hicks GC. Anti-leukotriene agents compared to inhaled corticosteroids in the management of recurrent and/or chronic asthma. *Cochrane Database Syst Rev* 2000;(3):CD002314.

Ducharme FM Hicks GC. Anti-leukotriene agents compared to inhaled corticosteroids in the management of recurrent and/or chronic asthma in adults and children. *Cochrane Database Syst Rev* 2002;(3):CD002314.

Ducharme FM, Chabot G, Polychronakos C, Glorieux F, Mazer B. Safety profile of frequent short courses of oral glucocorticoids in acute pediatric asthma: impact on bone metabolism, bone density, and adrenal function. *Pediatrics* 2003;111(2):376–383.

Ducharme FM. Inhaled glucocorticoids versus leukotriene receptor antagonists as single agent asthma treatment: systematic review of current evidence. *BMJ* 2003;326(7390):621.

- Duffy DL, Mitchell CA, Martin NG. Genetic and environmental risk factors for asthma: a cotwin-control study. *Am J Respir Crit Care Med* 1998;157(3 Pt 1):840–845.
- Dunlop G, Scadding GK, Lund VJ. The effect of endoscopic sinus surgery on asthma: management of patients with chronic rhinosinusitis, nasal polyposis, and asthma. *Am J Rhinol* 1999;13(4):261–265.
- Dunlop KA, Carson DJ, Shields MD. Hypoglycemia due to adrenal suppression secondary to high-dose nebulized corticosteroid. *Pediatr Pulmonol* 2002;34(1):85–86.
- Dunlop KA, Carson DJ, Steen HJ, McGovern V, McNaboe J, Shields MD. Monitoring growth in asthmatic children treated with high dose inhaled glucocorticoids does not predict adrenal suppression. *Arch Dis Child* 2004;89(8):713–716.
- Dupont LJ, Demedts MG, Verleden GM. Prospective evaluation of the validity of exhaled nitric oxide for the diagnosis of asthma. *Chest* 2003;123(3):751–756.
- Durham SR, Walker SM, Varga EM, Jacobson MR, O'Brien F, Noble W, Till SJ, Hamid QA, Nouri-Aria KT. Long-term clinical efficacy of grass-pollen immunotherapy. *N Engl J Med* 1999;341(7):468–475.
- Dusser D, Vicaut E, Lefrancois G. Double-blind, double-dummy, multinational, multicenter, parallel-group design clinical trial of clinical non-inferiority of formoterol 12 microg/unit dose in a b.i.d. regimen administered via an HFA-propellant-pMDI or a dry powder inhaler in a 12-week treatment period of moderate to severe stable persistent asthma in adult patients. *Respiration* 2005;72 Suppl 1:20–27.
- Eagan TM, Gulsvik A, Eide GE, Bakke PS. Occupational airborne exposure and the incidence of respiratory symptoms and asthma. *Am J Respir Crit Care Med* 2002;166(7):933–938.
- Eagan TM, Gulsvik A, Eide GE, Bakke PS. The effect of educational level on the incidence of asthma and respiratory symptoms. *Respir Med* 2004;98(8):730–736.
- Eccles M, McColl E, Steen N, Rousseau N, Grimshaw J, Parkin D, Purves I. Effect of computerised evidence based guidelines on management of asthma and angina in adults in primary care: cluster randomised controlled trial. *BMJ* 2002;325(7370):941.
- Echeverria ZL, Tomico DR, Bracamonte BT, Garcia CB. Status asthmaticus: is respiratory physiotherapy necessary? *Allergol Immunopathol (Madr)* 2000;28(5):290–291.
- Eckert DJ, Catcheside PG, Smith JH, Frith PA, McEvoy RD. Hypoxia suppresses symptom perception in asthma. *Am J Respir Crit Care Med* 2004;169(11):1224–1230.
- Edelman JM, Turpin JA, Bronsky EA, Grossman J, Kemp JP, Ghannam AF, DeLucca PT, Gormley GJ, Pearlman DS. Oral montelukast compared with inhaled salmeterol to prevent exercise-induced bronchoconstriction. A randomized, double-blind trial. Exercise Study Group. *Ann Intern Med* 2000;132(2):97–104.
- Eden E, Hammel J, Rouhani FN, Brantly ML, Barker AF, Buist AS, Fallat RJ, Stoller JK, Crystal RG, Turino GM. Asthma features in severe alpha1-antitrypsin deficiency: experience of the National Heart, Lung, and Blood Institute Registry. *Chest* 2003;123(3):765–771.

Ederle K. Improved control of asthma symptoms with a reduced dose of HFA-BDP extrafine aerosol: an open-label, randomised study. *Eur Rev Med Pharmacol Sci* 2003;7(2):45–55.

Edmunds SM, Harrison R. Subarachnoid hemorrhage in a child with status asthmaticus: significance of permissive hypercapnia. *Pediatr Crit Care Med* 2003;4(1):100–103.

Eduard W, Douwes J, Omenaa E, Heederik D. Do farming exposures cause or prevent asthma? Results from a study of adult Norwegian farmers. *Thorax* 2004;59(5):381–386.

Edwards AM, Lyons J, Weinberg E, Weinberg F, Gillies JD, Reid G, Robertson CF, Robinson P, Dalton M, Van Asperen P, et al. Early use of inhaled nedocromil sodium in children following an acute episode of asthma. *Thorax* 1999;54(4):308–315.

Eggleson PA, Butz A, Rand C, Curtin-Brosnan J, Kanchanaraksa S, Swartz L, Breysse P, Buckley T, Diette G, Merriman B, et al. Home environmental intervention in inner-city asthma: a randomized controlled clinical trial. *Ann Allergy Asthma Immunol* 2005;95(6):518–524.

Ehrlich R, Jordaan E, Du TD, Potter P, Volmink J, Zwarenstein M, Weinberg E. Household smoking and bronchial hyperresponsiveness in children with asthma. *J Asthma* 2001;38(3):239–251.

Eid N, Yandell B, Howell L, Eddy M, Sheikh S. Can peak expiratory flow predict airflow obstruction in children with asthma? *Pediatrics* 2000;105(2):354–358.

Eigen H. Efficacy of budesonide in inhaled corticosteroid-naïve patients and patients with mild persistent asthma. *Clin Ther* 2002;24(7):1035–1048.

Eisner MD, Yelin EH, Henke J, Shibuski SC, Blanc PD. Environmental tobacco smoke and adult asthma. The impact of changing exposure status on health outcomes. *Am J Respir Crit Care Med* 1998;158(1):170–175.

Eisner MD, Katz PP, Yelin EH, Shibuski SC, Blanc PD. Risk factors for hospitalization among adults with asthma: the influence of sociodemographic factors and asthma severity. *Respir Res* 2001;2(1):53–60. Epub December 2000.

Eisner MD, Katz PP, Yelin EH, Hammond SK, Blanc PD. Measurement of environmental tobacco smoke exposure among adults with asthma. *Environ Health Perspect* 2001;109(8):809–814.

Eisner MD, Lieu TA, Chi F, Capra AM, Mendoza GR, Selby JV, Blanc PD. Beta agonists, inhaled steroids, and the risk of intensive care unit admission for asthma. *Eur Respir J* 2001;17(2):233–240.

Eisner MD, Blanc PD. Environmental tobacco smoke exposure during travel among adults with asthma. *Chest* 2002;122(3):826–828.

Eisner MD, Ackerson LM, Chi F, Kalkbrenner A, Buchner D, Mendoza G, Lieu T. Health-related quality of life and future health care utilization for asthma. *Ann Allergy Asthma Immunol* 2002;89(1):46–55.

Eisner MD, Yelin EH, Katz PP, Earnest G, Blanc PD. Exposure to indoor combustion and adult asthma outcomes: environmental tobacco smoke, gas stoves, and woodsmoke. *Thorax* 2002;57(11):973–978.

Eisner MD. Environmental tobacco smoke exposure and pulmonary function among adults in NHANES III: impact on the general population and adults with current asthma. *Environ Health Perspect* 2002;110(8):765–770.

Eisner MD, Blanc PD. Gas stove use and respiratory health among adults with asthma in NHANES III. *Occup Environ Med* 2003;60(10):759–764.

Eisner MD, Klein J, Hammond SK, Koren G, Lactao G, Iribarren C. Directly measured second hand smoke exposure and asthma health outcomes. *Thorax* 2005;60(10):814–821.

Ekstrom T, Johansson KE. Effects of anti-reflux surgery on chronic cough and asthma in patients with gastro-oesophageal reflux disease. *Respir Med* 2000;94(12):1166–1170.

El Gamal Y, Hossny E, Awwad K, Mabrouk R, Boseila N. Plasma endothelin-1 immunoreactivity in asthmatic children. *Ann Allergy Asthma Immunol* 2002;88(4):370–373.

El Sawy IH, Badr-El-Din OM, El Azzouni OE, Motawae HA. Soluble intercellular adhesion molecule-1 in sera of children with bronchial asthma exacerbation. *Int Arch Allergy Immunol* 1999;119(2):126–132.

El Halawani SM, Ly NT, Mahon RT, Amundson DE. Exhaled nitric oxide as a predictor of exercise-induced bronchoconstriction. *Chest* 2003;124(2):639–643.

Emelyanov A, Fedoseev G, Abulimy A, Rudinski K, Fedoulov A, Karabanov A, Barnes PJ. Elevated concentrations of exhaled hydrogen peroxide in asthmatic patients. *Chest* 2001;120(4):1136–1139.

Emenius G, Svartengren M, Korsgaard J, Nordvall L, Pershagen G, Wickman M. Building characteristics, indoor air quality and recurrent wheezing in very young children (BAMSE). *Indoor Air* 2004;14(1):34–42.

Emerman CL, Woodruff PG, Cydulka RK, Gibbs MA, Pollack CV Jr, Camargo CA Jr. Prospective multicenter study of relapse following treatment for acute asthma among adults presenting to the emergency department. MARC investigators. Multicenter Asthma Research Collaboration. *Chest* 1999;115(4):919–927.

Emerman CL. Relapse following treatment of acute asthma in the emergency department. *J Asthma* 2000;37(8):701–708.

Emerman CL, Cydulka RK, Crain EF, Rowe BH, Radeos MS, Camargo CA Jr. Prospective multicenter study of relapse after treatment for acute asthma among children presenting to the emergency department. *J Pediatr* 2001;138(3):318–324.

Emond SD, Woodruff PG, Lee EY, Singh AK, Camargo CA Jr. Effect of an emergency department asthma program on acute asthma care. *Ann Emerg Med* 1999;34(3):321–325.

- Emond SD, Reed CR, Graff LG IV, Clark S, Camargo CA Jr. Asthma education in the Emergency Department. On behalf of the MARC Investigators. *Ann Emerg Med* 2000;36(3):204–211.
- Engvall K, Norrby C, Norback D. Asthma symptoms in relation to building dampness and odour in older multifamily houses in Stockholm. *Int J Tuberc Lung Dis* 2001;5(5):468–477.
- Ensom MH, Chong E, Carter D. Premenstrual symptoms in women with premenstrual asthma. *Pharmacotherapy* 1999;19(4):374–382.
- Ensom MH, Chong G, Zhou D, Beaudin B, Shalansky S, Bai TR. Estradiol in premenstrual asthma: a double-blind, randomized, placebo-controlled, crossover study. *Pharmacotherapy* 2003;23(5):561–571.
- Epstein GN, Halper JP, Barrett EA, Birdsall C, McGee M, Baron KP, Lowenstein S. A pilot study of mind-body changes in adults with asthma who practice mental imagery. *Altern Ther Health Med* 2004;10(4):66–71.
- Epton MJ, Martin IR, Graham P, Healy PE, Smith H, Balasubramaniam R, Harvey IC, Fountain DW, Hedley J, Town GI. Climate and aeroallergen levels in asthma: a 12 month prospective study. *Thorax* 1997;52(6):528–534.
- Ernst E. Breathing techniques—adjunctive treatment modalities for asthma? A systematic review. *Eur Respir J* 2000;15(5):969–972.
- Eryonucu B, Uzun K, Guler N, Bilge M. Comparison of the acute effects of salbutamol and terbutaline on heart rate variability in adult asthmatic patients. *Eur Respir J* 2001;17(5):863–867.
- Espesito S, Blasi F, Arosio C, Fioravanti L, Fagetti L, Droghetti R, Tarsia P, Allegra L, Principi N. Importance of acute Mycoplasma pneumoniae and Chlamydia pneumoniae infections in children with wheezing. *Eur Respir J* 2000;16(6):1142–1146.
- Evans R III, LeBailly S, Gordon KK, Sawyer A, Christoffel KK, Pearce B. Restructuring asthma care in a hospital setting to improve outcomes. *Chest* 1999;116(4 Suppl 1):210S–216S.
- Evans R III, Gergen PJ, Mitchell H, Kattan M, Kercsmar C, Crain E, Anderson J, Eggleston P, Malveaux FJ, Wedner HJ. A randomized clinical trial to reduce asthma morbidity among inner-city children: results of the National Cooperative Inner-City Asthma Study. *J Pediatr* 1999;135(3):332–338.
- Evans D, Mellins R, Lobach K, Ramos-Bonoan C, Pinkett-Heller M, Wiesemann S, Klein I, Donahue C, Burke D, Levison M, et al. Improving care for minority children with asthma: professional education in public health clinics. *Pediatrics* 1997;99(2):157–164.
- Evans D, Clark NM, Levison MJ, Levin B, Mellins RB. Can children teach their parents about asthma? *Health Educ Behav* 2001;28(4):500–511.
- Evans DJ, Cullinan P, Geddes DM. Cyclosporin as an oral corticosteroid sparing agent in stable asthma. *Cochrane Database Syst Rev* 2001;(2):CD002993.

Everden P, Campbell M, Harnden C, McGoldrick H, Bodalia B, Manion V, Reynia S. Eformoterol Turbohaler compared with salmeterol by dry powder inhaler in asthmatic children not controlled on inhaled corticosteroids. *Pediatr Allergy Immunol* 2004;15(1):40–47.

Eysink PE, ter Riet G, Aalberse RC, van Aalderen WM, Roos CM, van der Zee JS, Bindels PJ. Accuracy of specific IgE in the prediction of asthma: development of a scoring formula for general practice. *Br J Gen Pract* 2005;55(511):125–131.

Ezeamuzie CI, Al Ali S, Khan M, Hijazi Z, Dowaisan A, Thomson MS, Georgi J. IgE-mediated sensitization to mould allergens among patients with allergic respiratory diseases in a desert environment. *Int Arch Allergy Immunol* 2000;121(4):300–307.

Ezeamuzie CI, Thomson MS, Al Ali S, Dowaisan A, Khan M, Hijazi Z. Asthma in the desert: spectrum of the sensitizing aeroallergens. *Allergy* 2000;55(2):157–162.

Fabbri LM, Romagnoli M, Corbetta L, Casoni G, Busljetic K, Turato G, Ligabue G, Ciaccia A, Saetta M, Papi A. Differences in airway inflammation in patients with fixed airflow obstruction due to asthma or chronic obstructive pulmonary disease. *Am J Respir Crit Care Med* 2003;167(3):418–424.

Fagan J, Galea S, Ahern J, Bonner S, Vlahov D. Relationship of self-reported asthma severity and urgent health care utilization to psychological sequelae of the September 11, 2001 terrorist attacks on the World Trade Center among New York City area residents. *Psychosom Med* 2003;65(6):993–996.

Fahy JV, Fleming HE, Wong HH, Liu JT, Su JQ, Reimann J, Fick RB Jr, Boushey HA. The effect of an anti-IgE monoclonal antibody on the early- and late-phase responses to allergen inhalation in asthmatic subjects. *Am J Respir Crit Care Med* 1997;155(6):1828–1834.

Fahy JV, Boushey HA, Lazarus SC, Mauger EA, Cherniack RM, Chinchilli VM, Craig TJ, Drazen JM, Ford JG, Fish JE, et al. Safety and reproducibility of sputum induction in asthmatic subjects in a multicenter study. *Am J Respir Crit Care Med* 2001;163(6):1470–1475.

Fairfax A, Hall I, Spelman R. A randomized, double-blind comparison of beclomethasone dipropionate extrafine aerosol and fluticasone propionate. *Ann Allergy Asthma Immunol* 2001;86(5):575–582.

Farber HJ, Capra AM, Finkelstein JA, Lozano P, Quesenberry CP, Jensvold NG, Chi FW, Lieu TA. Misunderstanding of asthma controller medications: association with nonadherence. *J Asthma* 2003;40(1):17–25.

Fardon TC, Lee DK, Haggart K, McFarlane LC, Lipworth BJ. Adrenal suppression with dry powder formulations of fluticasone propionate and mometasone furoate. *Am J Respir Crit Care Med* 2004;170(9):960–966.

Farmer IS, Middle M, Savic J, Perri VL, Herdman MJ. Therapeutic equivalence of inhaled beclomethasone dipropionate with CFC and non-CFC (HFA 134a) propellants both delivered via the Easibreathe inhaler for the treatment of paediatric asthma. *Respir Med* 2000;94(1):57–63.

Feldman JM, Lehrer PM, Hochron SM. The predictive value of the Toronto Alexithymia Scale among patients with asthma. *J Psychosom Res* 2002;53(6):1049–1052.

Feleszko W, Zawadzka-Krajewska A, Matysiak K, Lewandowska D, Peradzynska J, Dinh QT, Hamelmann E, Groneberg DA, Kulus M. Parental tobacco smoking is associated with augmented IL-13 secretion in children with allergic asthma. *J Allergy Clin Immunol* 2006;117(1):97–102.

Fernandes AL, Faresin SM, Amorim MM, Fritscher CC, Pereira CA, Jardim JR. Inhaled budesonide for adults with mild-to-moderate asthma: a randomized placebo-controlled, double-blind clinical trial. *Sao Paulo Med J* 2001;119(5):169–174.

Fernandez MM, Villagra A, Blanch L, Fernandez R. Non-invasive mechanical ventilation in status asthmaticus. *Intensive Care Med* 2001;27(3):486–492.

Ferrari M, Segattini C, Zanon R, Bertaiola M, Balestreri F, Brotto E, Lo C, V. Comparison of the protective effect of formoterol and of salmeterol against exercise-induced bronchospasm when given immediately before a cycloergometric test. *Respiration* 2002;69(6):509–512.

Ferrari M, Bodini I, Lo C, V. Rhabdomyolysis after the administration of itraconazole to an asthmatic patient with bronchopulmonary aspergillosis. *Respiration* 2004;71(3):289–291.

Ferreira MB, Santos AS, Pegal AL, Michelena T, Alonso E, de Sousa AV, Pereira E, Palma-Carlos AG. Leukotriene receptor antagonists (Montelukast) in the treatment of asthma crisis: preliminary results of a double-blind placebo controlled randomized study. *Allerg Immunol (Paris)* 2001;33(8):315–318.

Ferris TG, Kuhlthau K, Ausiello J, Perrin J, Kahn R. Are minority children the last to benefit from a new technology? Technology diffusion and inhaled corticosteroids for asthma. *Med Care* 2006;44(1):81–86.

Field SK, Sutherland LR. Does medical antireflux therapy improve asthma in asthmatics with gastroesophageal reflux?: a critical review of the literature. *Chest* 1998;114(1):275–283.

Field SK, Gelfand GA, McFadden SD. The effects of antireflux surgery on asthmatics with gastroesophageal reflux. *Chest* 1999;116(3):766–774.

Field T, Henteleff T, Hernandez-Reif M, Martinez E, Mavunda K, Kuhn C, Schanberg S. Children with asthma have improved pulmonary functions after massage therapy. *J Pediatr* 1998;132(5):854–858.

Fielder HM, Lyons RA, Heaven M, Morgan H, Govier P, Hooper M. Effect of environmental tobacco smoke on peak flow variability. *Arch Dis Child* 1999;80(3):253–256.

Filippelli M, Pacini F, Romagnoli I, Rosi E, Ottanelli R, Duranti R, Scano G. Airway obstruction and chronic exertional dyspnoea in patients with persistent bronchial asthma. *Respir Med* 2000;94(7):694–701.

Findley S, Lawler K, Bindra M, Maggio L, Penachio MM, Maylahn C. Elevated asthma and indoor environmental exposures among Puerto Rican children of East Harlem. *J Asthma* 2003;40(5):557–569.

Finegold I. Analyzing meta-analyses of specific immunotherapy in the treatment of asthma. *Ann Allergy Asthma Immunol* 2001;87(1 Suppl 1):33–37.

Finkelstein JA, Lozano P, Streiff KA, Arduino KE, Sisk CA, Wagner EH, Weiss KB, Inui TS. Clinical effectiveness research in managed-care systems: lessons from the Pediatric Asthma Care PORT. Patient Outcomes Research Team. *Health Serv Res* 2002;37(3):775–789.

Finkelstein JA, Fuhlbrigge A, Lozano P, Grant EN, Shulruff R, Arduino KE, Weiss KB. Parent-reported environmental exposures and environmental control measures for children with asthma. *Arch Pediatr Adolesc Med* 2002;156(3):258–264.

Finkelstein JA, Lozano P, Fuhlbrigge AL, Carey VJ, Inui TS, Soumerai SB, Sullivan SD, Wagner EH, Weiss ST, Weiss KB. Practice-level effects of interventions to improve asthma care in primary care settings: the Pediatric Asthma Care Patient Outcomes Research Team. *Health Serv Res* 2005;40(6 Pt 1):1737–1757.

Finn A, Gross G, van Bavel J, Lee T, Windom H, Everhard F, Fowler-Taylor A, Liu J, Gupta N. Omalizumab improves asthma-related quality of life in patients with severe allergic asthma. *J Allergy Clin Immunol* 2003;111(2):278–284.

Finn PW, Boudreau JO, He H, Wang Y, Chapman MD, Vincent C, Burge HA, Weiss ST, Perkins DL, Gold DR. Children at risk for asthma: home allergen levels, lymphocyte proliferation, and wheeze. *J Allergy Clin Immunol* 2000;105(5):933–942.

Fish JE, Kemp JP, Lockey RF, Glass M, Hanby LA, Bonuccelli CM. Zafirlukast for symptomatic mild-to-moderate asthma: a 13-week multicenter study. The Zafirlukast Trialists Group. *Clin Ther* 1997;19(4):675–690.

Fish JE, Israel E, Murray JJ, Emmett A, Boone R, Yancey SW, Rickard KA. Salmeterol powder provides significantly better benefit than montelukast in asthmatic patients receiving concomitant inhaled corticosteroid therapy. *Chest* 2001;120(2):423–430.

Fish L, Wilson SR, Latini DM, Starr NJ. An education program for parents of children with asthma: differences in attendance between smoking and nonsmoking parents. *Am J Public Health* 1996;86(2):246–248.

Fisher EB, Strunk RC, Sussman LK, Sykes RK, Walker MS. Community organization to reduce the need for acute care for asthma among African American children in low-income neighborhoods: the Neighborhood Asthma Coalition. *Pediatrics* 2004;114(1):116–123.

Fisher MM, Whaley AP, Pye RR. External chest compression in the management of acute severe asthma—a technique in search of evidence. *Prehospital Disaster Med* 2001;16(3):124–127.

Fishwick D, Bradshaw L, Macdonald C, Beasley R, Gash D, Bengtsson T, Bondesson E, Borgstrom L. Cumulative and single-dose design to assess the bronchodilator effects of beta<sub>2</sub>-agonists in individuals with asthma. *Am J Respir Crit Care Med* 2001;163(2):474–477.

FitzGerald JM, Becker A, Sears MR, Mink S, Chung K, Lee J. Doubling the dose of budesonide versus maintenance treatment in asthma exacerbations. *Thorax* 2004;59(7):550–556.

FitzGerald JM, Boulet LP, Follows RM. The CONCEPT trial: a 1-year, multicenter, randomized, double-blind, double-dummy comparison of a stable dosing regimen of

salmeterol/fluticasone propionate with an adjustable maintenance dosing regimen of formoterol/budesonide in adults with persistent asthma. *Clin Ther* 2005;27(4):393–406.

Fleming DM, Cross KW, Sunderland R, Ross AM. Comparison of the seasonal patterns of asthma identified in general practitioner episodes, hospital admissions, and deaths. *Thorax* 2000;55(8):662–665.

Flodin U, Jonsson P. Non-sensitising air pollution at workplaces and adult onset asthma. *Int Arch Occup Environ Health* 2004;77(1):17–22.

Ford ES, Mannino DM, Redd SC, Mokdad AH, Galuska DA, Serdula MK. Weight-loss practices and asthma: findings from the behavioral risk factor surveillance system. *Obes Res* 2003;11(1):81–86.

Ford ES. The epidemiology of obesity and asthma. *J Allergy Clin Immunol* 2005;115(5):897–909.

Ford JG, Meyer IH, Sternfels P, Findley SE, McLean DE, Fagan JK, Richardson L. Patterns and predictors of asthma-related emergency department use in Harlem. *Chest* 2001;120(4):1129–1135.

Ford ME, Havstad SL, Tilley BC, Bolton MB. Health outcomes among African American and Caucasian adults following a randomized trial of an asthma education program. *Ethn Health* 1997;2(4):329–339.

Foresi A, Morelli MC, Catena E. Low-dose budesonide with the addition of an increased dose during exacerbations is effective in long-term asthma control. On behalf of the Italian Study Group. *Chest* 2000;117(2):440–446.

Foresi A, Teodoro C, Leone C, Pelucchi A, D'Ippolito R, Chetta A, Olivieri D. Eosinophil apoptosis in induced sputum from patients with seasonal allergic rhinitis and with asymptomatic and symptomatic asthma. *Ann Allergy Asthma Immunol* 2000;84(4):411–416.

Foresi A, Mastropasqua B, Chetta A, D'Ippolito R, Testi R, Olivieri D, Pelucchi A. Step-down compared to fixed-dose treatment with inhaled fluticasone propionate in asthma. *Chest* 2005;127(1):117–124.

Forshee JD, Whalen EB, Hackel R, Butt LT, Smeltzer PA, Martin J, Lavin PT, Buchner DA. The effectiveness of one-on-one nurse education on the outcomes of high-risk adult and pediatric patients with asthma. *Manag Care Interface* 1998;11(12):82–92.

Foschino Barbaro MP, Resta O, Aliani M, Guido P, Izzo C, Logroscino C, Epifani V, Bisconti M, Gerardi R, Del Prete R, et al. Seroprevalence of chronic Chlamydia pneumoniae infection in patients affected by chronic stable asthma. *Clin Microbiol Infect* 2002;8(6):358–362.

Fowler SJ, Wilson AM, Griffiths EA, Lipworth BJ. Comparative in vivo lung delivery of hydrofluoroalkane-salbutamol formulation via metered-dose inhaler alone, with plastic spacer, or with cardboard tube. *Chest* 2001;119(4):1018–1020.

Fowler SJ, Currie GP, Lipworth BJ. Step-down therapy with low-dose fluticasone-salmeterol combination or medium-dose hydrofluoroalkane 134a-beclomethasone alone. *J Allergy Clin Immunol* 2002;109(6):929–935.

Francis H, Fletcher G, Anthony C, Pickering C, Oldham L, Hadley E, Custovic A, Niven R. Clinical effects of air filters in homes of asthmatic adults sensitized and exposed to pet allergens. *Clin Exp Allergy* 2003;33(1):101–105.

Franco J, Artes MJ. Pulmonary eosinophilia associated with montelukast. *Thorax* 1999;54(6):558–560.

Frederick JM, Warner JO, Jessop WJ, Enander I, Warner JA. Effect of a bed covering system in children with asthma and house dust mite hypersensitivity. *Eur Respir J* 1997;10(2):361–366.

Freeman LW, Welton D. Effects of imagery, critical thinking, and asthma education on symptoms and mood state in adult asthma patients: a pilot study. *J Altern Complement Med* 2005;11(1):57–68.

Freeman NC, Schneider D, McGarvey P. Household exposure factors, asthma, and school absenteeism in a predominantly Hispanic community. *J Expo Anal Environ Epidemiol* 2003;13(3):169–176.

French DJ, Carroll A. Western Australian primary school teachers' knowledge about childhood asthma and its management. *J Asthma* 1997;34(6):469–475.

Frey B, Freezer N. Diagnostic value and pathophysiologic basis of pulsus paradoxus in infants and children with respiratory disease. *Pediatr Pulmonol* 2001;31(2):138–143.

Frey U, Brodbeck T, Majumdar A, Taylor DR, Town GI, Silverman M, Suki B. Risk of severe asthma episodes predicted from fluctuation analysis of airway function. *Nature* 2005;438(7068):667–670.

Freymuth F, Vabret A, Brouard J, Toutain F, Verdon R, Petitjean J, Gouarin S, Duhamel JF, Guillois B. Detection of viral, Chlamydia pneumoniae and Mycoplasma pneumoniae infections in exacerbations of asthma in children. *J Clin Virol* 1999;13(3):131–139.

Fuhlbrigge AL, Kitch BT, Paltiel AD, Kuntz KM, Neumann PJ, Dockery DW, Weiss ST. FEV(1) is associated with risk of asthma attacks in a pediatric population. *J Allergy Clin Immunol* 2001;107(1):61–67.

Fujieda S, Diaz-Sanchez D, Saxon A. Combined nasal challenge with diesel exhaust particles and allergen induces In vivo IgE isotype switching. *Am J Respir Cell Mol Biol* 1998;19(3):507–512.

Fujita K, Kasayama S, Hashimoto J, Nagasaka Y, Nakano N, Morimoto Y, Barnes PJ, Miyatake A. Inhaled corticosteroids reduce bone mineral density in early postmenopausal but not premenopausal asthmatic women. *J Bone Miner Res* 2001;16(4):782–787.

Fujitaka M, Kawaguchi H, Kato Y, Sakura N, Ueda K, Abe Y. Significance of the eosinophil cationic protein/eosinophil count ratio in asthmatic patients: its relationship to disease severity. *Ann Allergy Asthma Immunol* 2001;86(3):323–329.

Fukushima C, Shimoda T, Kawano T, Tomari S, Mitsuta K, Obase Y, Matsuo N, Matsuse H, Kohno S. Effects of amphotericin B gargles on oral colonization of *Candida albicans* in asthmatic patients on steroid inhalation therapy. *Respiration* 2001;68(5):465–470.

Fukushima C, Matsuse H, Tomari S, Obase Y, Miyazaki Y, Shimoda T, Kohno S. Oral candidiasis associated with inhaled corticosteroid use: comparison of fluticasone and beclomethasone. *Ann Allergy Asthma Immunol* 2003;90(6):646–651.

Furukawa C, Atkinson D, Forster TJ, Nazzario K, Simpson B, Uryniak T, Casty FE. Controlled trial of two formulations of cromolyn sodium in the treatment of asthmatic patients > or = 12 years of age. Intal Study Group. *Chest* 1999;116(1):65–72.

Furusho K, Nishikawa K, Sasaki S, Akasaka T, Arita M, Edwards A. The combination of nebulized sodium cromoglycate and salbutamol in the treatment of moderate-to-severe asthma in children. *Pediatr Allergy Immunol* 2002;13(3):209–216.

Gabrijelcic J, Casas A, Rabinovich RA, Roca J, Barbera JA, Chung KF, Rodriguez-Roisin R. Formoterol protects against platelet-activating factor-induced effects in asthma. *Eur Respir J* 2004;23(1):71–75.

Gaig P, Enrique E, Garcia-Ortega P, Olona M, del Mar SM, Richard C. Asthma, mite sensitization, and sleeping in bunks. *Ann Allergy Asthma Immunol* 1999;82(6):531–533.

Gali B, Goyal DG. Positive pressure mechanical ventilation. *Emerg Med Clin North Am* 2003;21(2):453–473.

Gallefoss F, Bakke PS. Impact of patient education and self-management on morbidity in asthmatics and patients with chronic obstructive pulmonary disease. *Respir Med* 2000;94(3):279–287.

Gallefoss F, Bakke PS. Cost-effectiveness of self-management in asthmatics: a 1-yr follow-up randomized, controlled trial. *Eur Respir J* 2001;17(2):206–213.

Ganas K, Loukides S, Papatheodorou G, Panagou P, Kalogeropoulos N. Total nitrite/nitrate in expired breath condensate of patients with asthma. *Respir Med* 2001;95(8):649–654.

Gannon PF, Belcher J, Pantin CF, Burge PS. The effect of patient technique and training on the accuracy of self-recorded peak expiratory flow. *Eur Respir J* 1999;14(1):28–31.

Gao H, Xue Q, Lin Y, Wang L, Zhu G, Zhao Q, Chen Y. Role of beta-adrenoceptor at different stages of bronchial asthma. *Chin Med J (Engl)* 2001;114(12):1317–1319.

Garcia-Rio F, Mediano O, Ramirez M, Vinas A, Alonso A, Alvarez-Sala R, Pino JM. Usefulness of bronchial reactivity analysis in the diagnosis of bronchial asthma in patients with bronchial hyperresponsiveness. *Respir Med* 2004;98(3):199–204.

Garcia R, Guerra P, Feo F, Galindo PA, Gomez E, Borja J, Fernandez-Pacheco R. Tachyphylaxis following regular use of formoterol in exercise-induced bronchospasm. *J Investig Allergol Clin Immunol* 2001;11(3):176–182.

Garratt AM, Hutchinson A, Russell I. Patient-assessed measures of health outcome in asthma: a comparison of four approaches. *Respir Med* 2000;94(6):597–606.

Garrett J, Williams S, Wong C, Holdaway D. Application of asthma action plans to childhood asthma: a national survey. *N Z Med J* 1997;110(1050):308–310.

Garrett J, Williams S, Wong C, Holdaway D. Treatment of acute asthmatic exacerbations with an increased dose of inhaled steroid. *Arch Dis Child* 1998;79(1):12–17.

Garrett MH, Hooper MA, Hooper BM, Abramson MJ. Respiratory symptoms in children and indoor exposure to nitrogen dioxide and gas stoves. *Am J Respir Crit Care Med* 1998;158(3):891–895.

Garrett MH, Rayment PR, Hooper MA, Abramson MJ, Hooper BM. Indoor airborne fungal spores, house dampness and associations with environmental factors and respiratory health in children. *Clin Exp Allergy* 1998;28(4):459–467.

Garrett MH, Hooper MA, Hooper BM, Rayment PR, Abramson MJ. Increased risk of allergy in children due to formaldehyde exposure in homes. *Allergy* 1999;54(4):330–337.

Gaspar AP, Morais-Almeida MA, Pires GC, Prates SR, Camara RA, Godinho NM, Arede CS, Rosado-Pinto JE. Risk factors for asthma admissions in children. *Allergy Asthma Proc* 2002;23(5):295–301.

Gautrin D, Ghezzo H, Malo JL. Rhinconjunctivitis, bronchial responsiveness, and atopy as determinants for incident non-work-related asthma symptoms in apprentices exposed to high-molecular-weight allergens. *Allergy* 2003;58(7):608–615.

Gauvreau GM, Inman MD, Kelly M, Watson RM, Dorman SC, O'Byrne PM. Increased levels of airway neutrophils reduce the inhibitory effects of inhaled glucocorticosteroids on allergen-induced airway eosinophils. *Can Respir J* 2002;9(1):26–32.

Gazarian M, Henry RL, Wales SR, Micallef BE, Rood EM, O'Meara MW, Numa AH. Evaluating the effectiveness of evidence-based guidelines for the use of spacer devices in children with acute asthma. *Med J Aust* 2001;174(8):394–397.

Geber N, Hummelink R, Konning J, Staab D, Schmidt S, Szczepanski R, Runde B, Wahn U. Efficacy of a self-management program for childhood asthma—a prospective controlled study. *Patient Educ Couns* 1998;35(3):213–220.

Gehlbach B, Kress JP, Kahn J, DeRuiter C, Pohlman A, Hall J. Correlates of prolonged hospitalization in inner-city ICU patients receiving noninvasive and invasive positive pressure ventilation for status asthmaticus. *Chest* 2002;122(5):1709–1714.

Gehring U, Heinrich J, Jacob B, Richter K, Fahlbusch B, Schlenvoigt G, Bischof W, Wichmann HE. Respiratory symptoms in relation to indoor exposure to mite and cat allergens and endotoxins. Indoor Factors and Genetics in Asthma (INGA) Study Group. *Eur Respir J* 2001;18(3):555–563.

Gelb AF, Licuanan J, Shinar CM, Zamel N. Unsuspected loss of lung elastic recoil in chronic persistent asthma. *Chest* 2002;121(3):715–721.

Gent JF, Ren P, Belanger K, Triche E, Bracken MB, Holford TR, Leaderer BP. Levels of household mold associated with respiratory symptoms in the first year of life in a cohort at risk for asthma. *Environ Health Perspect* 2002;110(12):A781–A786.

Gent JF, Triche EW, Holford TR, Belanger K, Bracken MB, Beckett WS, Leaderer BP. Association of low-level ozone and fine particles with respiratory symptoms in children with asthma. *JAMA* 2003;290(14):1859–1867.

Gentile NT, Ufberg J, Barnum M, McHugh M, Karras D. Guidelines reduce x-ray and blood gas utilization in acute asthma. *Am J Emerg Med* 2003;21(6):451–453.

George MR, O'Dowd LC, Martin I, Lindell KO, Whitney F, Jones M, Ramondo T, Walsh L, Grissinger J, Hansen-Flaschen J, et al. A comprehensive educational program improves clinical outcome measures in inner-city patients with asthma. *Arch Intern Med* 1999;159(15):1710–1716.

Gereda JE, Leung DY, Thatayatikom A, Streib JE, Price MR, Klinnert MD, Liu AH. Relation between house-dust endotoxin exposure, type 1 T-cell development, and allergen sensitisation in infants at high risk of asthma. *Lancet* 2000;355(9216):1680–1683.

Gergen PJ, Fowler JA, Maurer KR, Davis WW, Overpeck MD. The burden of environmental tobacco smoke exposure on the respiratory health of children 2 months through 5 years of age in the United States: Third National Health and Nutrition Examination Survey, 1988 to 1994. *Pediatrics* 1998;101(2):E8.

Gergen PJ, Mortimer KM, Eggleston PA, Rosenstreich D, Mitchell H, Ownby D, Kattan M, Baker D, Wright EC, Slavin R, et al. Results of the National Cooperative Inner-City Asthma Study (NCICAS) environmental intervention to reduce cockroach allergen exposure in inner-city homes. *J Allergy Clin Immunol* 1999;103(3 Pt 1):501–506.

Gergen PJ, Mitchell H, Lynn H. Understanding the seasonal pattern of childhood asthma: results from the National Cooperative Inner-City Asthma Study (NCICAS). *J Pediatr* 2002;141(5):631–636.

Gershman NH, Wong HH, Liu JT, Fahy JV. Low- and high-dose fluticasone propionate in asthma; effects during and after treatment. *Eur Respir J* 2000;15(1):11–18.

Ghiro L, Zanconato S, Rampon O, Piovan V, Pasquale MF, Baraldi E. Effect of montelukast added to inhaled corticosteroids on fractional exhaled nitric oxide in asthmatic children. *Eur Respir J* 2002;20(3):630–634.

Ghosh CS, Ravindran P, Joshi M, Stearns SC. Reductions in hospital use from self management training for chronic asthmatics. *Soc Sci Med* 1998;46(8):1087–1093.

Giannini D, Di Franco A, Bacci E, Dente FL, Taccola M, Vagaggini B, Paggiaro P. The protective effect of salbutamol inhaled using different devices on methacholine bronchoconstriction. *Chest* 2000;117(5):1319–1323.

Giannini D, Di Franco A, Cianchetti S, Bacci E, Dente FL, Vagaggini B, Paggiaro PL. Analysis of induced sputum before and after withdrawal of treatment with inhaled corticosteroids in asthmatic patients. *Clin Exp Allergy* 2000;30(12):1777–1784.

Giardino ND, Schmalong KB, Afari N. Relationship satisfaction moderates the association between catastrophic cognitions and asthma symptoms. *J Asthma* 2002;39(8):749–756.

Gibbs MA, Camargo CA Jr, Rowe BH, Silverman RA. State of the art: therapeutic controversies in severe acute asthma. *Acad Emerg Med* 2000;7(7):800–815.

Gibson PG, Talbot PI, Toneguzzi RC. Self-management, autonomy, and quality of life in asthma. Population Medicine Group 91C. *Chest* 1995;107(4):1003–1008.

Gibson PG, Coughlan J, Wilson AJ, Hensley MJ, Abramson M, Bauman A, Walters EH. Limited (information only) patient education programs for adults with asthma. *Cochrane Database Syst Rev* 2000;(2):CD001005.

Gibson PG, Coughlan J, Wilson AJ, Abramson M, Bauman A, Hensley MJ, Walters EH. Self-management education and regular practitioner review for adults with asthma. *Cochrane Database Syst Rev* 2000;(2):CD001117.

Gibson PG, Henry RL, Coughlan JL. Gastro-oesophageal reflux treatment for asthma in adults and children. *Cochrane Database Syst Rev* 2000;(2):CD001496.

Gibson PG, Saltos N, Fakes K. Acute anti-inflammatory effects of inhaled budesonide in asthma: a randomized controlled trial. *Am J Respir Crit Care Med* 2001;163(1):32–36.

Gibson PG, Simpson JL, Chalmers AC, Toneguzzi RC, Wark PA, Wilson AJ, Hensley MJ. Airway eosinophilia is associated with wheeze but is uncommon in children with persistent cough and frequent chest colds. *Am J Respir Crit Care Med* 2001;164(6):977–981.

Gibson PG, Powell H, Coughlan J, Wilson AJ, Hensley MJ, Abramson M, Bauman A, Walters EH. Limited (information only) patient education programs for adults with asthma. *Cochrane Database Syst Rev* 2002;(2):CD001005.

Gibson PG, Powell H, Coughlan J, Wilson AJ, Abramson M, Haywood P, Bauman A, Hensley MJ, Walters EH. Self-management education and regular practitioner review for adults with asthma. *Cochrane Database Syst Rev* 2003;(1):CD001117.

Gibson PG, Henry RL, Coughlan JL. Gastro-oesophageal reflux treatment for asthma in adults and children. *Cochrane Database Syst Rev* 2003;(2):CD001496.

Gibson PG, Simpson JL, Hankin R, Powell H, Henry RL. Relationship between induced sputum eosinophils and the clinical pattern of childhood asthma. *Thorax* 2003;58(2):116–121.

Gibson PG, Powell H. Written action plans for asthma: an evidence-based review of the key components. *Thorax* 2004;59(2):94–99.

Gillaspy SR, Hoff AL, Mullins LL, Van Pelt JC, Chaney JM. Psychological distress in high-risk youth with asthma. *J Pediatr Psychol* 2002;27(4):363–371.

Gilliland FD, Li YF, Peters JM. Effects of maternal smoking during pregnancy and environmental tobacco smoke on asthma and wheezing in children. *Am J Respir Crit Care Med* 2001;163(2):429–436.

Gilliland FD, Li YF, Dubeau L, Berhane K, Avol E, McConnell R, Gauderman WJ, Peters JM. Effects of glutathione S-transferase M1, maternal smoking during pregnancy, and environmental tobacco smoke on asthma and wheezing in children. *Am J Respir Crit Care Med* 2002;166(4):457–463.

Gilliland FD, Berhane K, Islam T, Wenten M, Rappaport E, Avol E, Gauderman WJ, McConnell R, Peters JM. Environmental tobacco smoke and absenteeism related to respiratory illness in schoolchildren. *Am J Epidemiol* 2003;157(10):861–869.

Gilliland FD, Li YF, Saxon A, Diaz-Sanchez D. Effect of glutathione-S-transferase M1 and P1 genotypes on xenobiotic enhancement of allergic responses: randomised, placebo-controlled crossover study. *Lancet* 2004;363(9403):119–125.

Gillman SA, Anolik R, Schenkel E, Newman K. One-year trial on safety and normal linear growth with flunisolide HFA in children with asthma. *Clin Pediatr (Phila)* 2002;41(5):333–340.

Girgis ST, Marks GB, Downs SH, Kolbe A, Car GN, Paton R. Thunderstorm-associated asthma in an inland town in south-eastern Australia. Who is at risk? *Eur Respir J* 2000;16(1):3–8.

Gluckman TJ, Corbridge T. Management of respiratory failure in patients with asthma. *Curr Opin Pulm Med* 2000;6(1):79–85.

Godfrey S, Springer C, Bar-Yishay E, Avital A. Cut-off points defining normal and asthmatic bronchial reactivity to exercise and inhalation challenges in children and young adults. *Eur Respir J* 1999;14(3):659–668.

Godon P, Boulet LP, Malo JL, Cartier A, Lemiere C. Assessment and evaluation of symptomatic steroid-naive asthmatics without sputum eosinophilia and their response to inhaled corticosteroids. *Eur Respir J* 2002;20(6):1364–1369.

Goeman DP, Aroni RA, Stewart K, Sawyer SM, Thien FC, Abramson MJ, Douglass JA. Patients' views of the burden of asthma: a qualitative study. *Med J Aust* 2002;177(6):295–299.

Goethe JW, Maljanian R, Wolf S, Hernandez P, Cabrera Y. The impact of depressive symptoms on the functional status of inner-city patients with asthma. *Ann Allergy Asthma Immunol* 2001;87(3):205–210.

Goggin N, Macarthur C, Parkin PC. Randomized trial of the addition of ipratropium bromide to albuterol and corticosteroid therapy in children hospitalized because of an acute asthma exacerbation. *Arch Pediatr Adolesc Med* 2001;155(12):1329–1334.

Gokbel H, Atas S. Exercise-induced bronchospasm in nonasthmatic obese and nonobese boys. *J Sports Med Phys Fitness* 1999;39(4):361–364.

Golan Y, Onn A, Villa Y, Avidor Y, Kivity S, Berger SA, Shapira I, Levo Y, Giladi M. Asthma in adventure travelers: a prospective study evaluating the occurrence and risk factors for acute exacerbations. *Arch Intern Med* 2002;162(21):2421–2426.

Gold DR, Burge HA, Carey V, Milton DK, Platts-Mills T, Weiss ST. Predictors of repeated wheeze in the first year of life: the relative roles of cockroach, birth weight, acute lower respiratory illness, and maternal smoking. *Am J Respir Crit Care Med* 1999;160(1):227–236.

Gold DR, Damokosh AI, Dockery DW, Berkey CS. Body-mass index as a predictor of incident asthma in a prospective cohort of children. *Pediatr Pulmonol* 2003;36(6):514–521.

Goldberg R, Chan L, Haley P, Harmata-Booth J, Bass G. Critical pathway for the emergency department management of acute asthma: effect on resource utilization. *Ann Emerg Med* 1998;31(5):562–567.

Goldberg S, Springer C, Avital A, Godfrey S, Bar-Yishay E. Can peak expiratory flow measurements estimate small airway function in asthmatic children? *Chest* 2001;120(2):482–488.

Goldman MD, Carter R, Klein R, Fritz G, Carter B, Pachucki P. Within- and between-day variability of respiratory impedance, using impulse oscillometry in adolescent asthmatics. *Pediatr Pulmonol* 2002;34(4):312–319.

Goldney RD, Ruffin R, Fisher LJ, Wilson DH. Asthma symptoms associated with depression and lower quality of life: a population survey. *Med J Aust* 2003;178(9):437–441.

Goldstein AB, Castile RG, Davis SD, Filbrun DA, Flucke RL, McCoy KS, Tepper RS. Bronchodilator responsiveness in normal infants and young children. *Am J Respir Crit Care Med* 2001;164(3):447–454.

Goldstein MF, Grundfast SK, Dunsky EH, Dvorin DJ, Lesser R. Effect of functional endoscopic sinus surgery on bronchial asthma outcomes. *Arch Otolaryngol Head Neck Surg* 1999;125(3):314–319.

Goldstein MF, Veza BA, Dunsky EH, Dvorin DJ, Belecanech GA, Haralabatos IC. Comparisons of peak diurnal expiratory flow variation, postbronchodilator FEV(1) responses, and methacholine inhalation challenges in the evaluation of suspected asthma. *Chest* 2001;119(4):1001–1010.

Goleva E, Dunlap A, Leung DY. Differential control of TH1 versus TH2 cell responses by the combination of low-dose steroids with beta<sub>2</sub>-adrenergic agonists. *J Allergy Clin Immunol* 2004;114(1):183–191.

Gomez FP, Marrades RM, Iglesia R, Roca J, Barbera JA, Chung KF, Rodriguez-Roisin RM. Gas exchange response to a PAF receptor antagonist, SR 27417A, in acute asthma: a pilot study. *Eur Respir J* 1999;14(3):622–626.

Gomez RF, Svanes C, Bjornsson EH, Franklin KA, Gislason D, Gislason T, Gulsvik A, Janson C, Jogi R, Kiserud T, et al. Hormone replacement therapy, body mass index and asthma in perimenopausal women: a cross sectional survey. *Thorax* 2006;61(1):34–40.

Gong H Jr, Linn WS, Terrell SL, Anderson KR, Clark KW. Anti-inflammatory and lung function effects of montelukast in asthmatic volunteers exposed to sulfur dioxide. *Chest* 2001;119(2):402–408.

Gonzalez-Sanchez R, Trujillo-Hernandez B, Huerta M, Vasquez C, Trujillo X. Furosemide plus albuterol compared with albuterol alone in children with acute asthma. *Allergy Asthma Proc* 2002;23(3):181–184.

Goodwin RD, Olfsen M, Shea S, Lantigua RA, Carrasquillo O, Gameroff MJ, Weissman MM. Asthma and mental disorders in primary care. *Gen Hosp Psychiatry* 2003;25(6):479–483.

Goodwin RD, Eaton WW. Asthma and the risk of panic attacks among adults in the community. *Psychol Med* 2003;33(5):879–885.

Goodwin RD, Pine DS, Hoven CW. Asthma and panic attacks among youth in the community. *J Asthma* 2003;40(2):139–145.

Gordon JR, Swystun VA, Li F, Zhang X, Davis BE, Hull P, Cockcroft DW. Regular salbutamol use increases CXCL8 responses in asthma: relationship to the eosinophil response. *Eur Respir J* 2003;22(1):118–126.

Gorelick MH, Stevens MW, Schultz TR. Comparability of acute asthma severity assessments by parents and respiratory therapists. *Arch Pediatr Adolesc Med* 2002;156(12):1199–1202.

Gorelick MH, Scribano PV, Stevens MW, Schultz TR. Construct validity and responsiveness of the Child Health Questionnaire in children with acute asthma. *Ann Allergy Asthma Immunol* 2003;90(6):622–628.

Gorelick MH, Stevens MW, Schultz T, Scribano PV. Difficulty in obtaining peak expiratory flow measurements in children with acute asthma. *Pediatr Emerg Care* 2004;20(1):22–26.

Gorelick MH, Brousseau DC, Stevens MW. Validity and responsiveness of a brief, asthma-specific quality-of-life instrument in children with acute asthma. *Ann Allergy Asthma Immunol* 2004;92(1):47–51.

Gorelick MH, Stevens MW, Schultz TR, Scribano PV. Performance of a novel clinical score, the Pediatric Asthma Severity Score (PASS), in the evaluation of acute asthma. *Acad Emerg Med* 2004;11(1):10–18.

Goto E, Okamoto I, Tanaka K. The clinical characteristics at the onset of a severe asthma attack and the effects of high frequency jet ventilation for severe asthmatic patients. *Eur J Emerg Med* 1998;5(4):451–455.

Goubault C, Perault MC, Leleu E, Bouquet S, Legros P, Vandel B, Denjean A. Effects of inhaled salbutamol in exercising non-asthmatic athletes. *Thorax* 2001;56(9):675–679.

Gouin S, Macarthur C, Parkin PC, Schuh S. Effect of a pediatric observation unit on the rate of hospitalization for asthma. *Ann Emerg Med* 1997;29(2):218–222.

Gouin S, Patel H. Utilization analysis of an observation unit for children with asthma. *Pediatr Emerg Care* 1999;15(2):79–83.

Gourgoulianis KI, Brelas N, Hatziparasides G, Papayianni M, Molyvdas PA. The influence of altitude in bronchial asthma. *Arch Med Res* 2001;32(5):429–431.

Graham DM, Blaiss MS, Bayliss MS, Espindle DM, Ware JE Jr. Impact of changes in asthma severity on health-related quality of life in pediatric and adult asthma patients: results from the asthma outcomes monitoring system. *Allergy Asthma Proc* 2000;21(3):151–158.

Graham V, Lasserson T, Rowe BH. Antibiotics for acute asthma. *Cochrane Database Syst Rev* 2001;(3):CD002741.

Graif Y, Yigla M, Tov N, Kramer MR. Value of a negative aeroallergen skin-prick test result in the diagnosis of asthma in young adults: correlative study with methacholine challenge testing. *Chest* 2002;122(3):821–825.

Grazzini M, Scano G, Foglio K, Duranti R, Bianchi L, Gigliotti E, Rosi E, Stendardi L, Ambrosino N. Relevance of dyspnoea and respiratory function measurements in monitoring of asthma: a factor analysis. *Respir Med* 2001;95(4):246–250.

Greaves CJ, Eiser C, Seemark D, Halpin DM. Attack context: an important mediator of the relationship between psychological status and asthma outcomes. *Thorax* 2002;57(3):217–221.

Green RH, Brightling CE, McKenna S, Hargadon B, Parker D, Bradding P, Wardlaw AJ, Pavord ID. Asthma exacerbations and sputum eosinophil counts: a randomised controlled trial. *Lancet* 2002;360(9347):1715–1721.

Green RH, Brightling CE, Woltmann G, Parker D, Wardlaw AJ, Pavord ID. Analysis of induced sputum in adults with asthma: identification of subgroup with isolated sputum neutrophilia and poor response to inhaled corticosteroids. *Thorax* 2002;57(10):875–879.

Green RM, Custovic A, Sanderson G, Hunter J, Johnston SL, Woodcock A. Synergism between allergens and viruses and risk of hospital admission with asthma: case-control study. *BMJ* 2002;324(7340):763.

Green SA, Malice MP, Tanaka W, Tozzi CA, Reiss TF. Increase in urinary leukotriene LTE4 levels in acute asthma: correlation with airflow limitation. *Thorax* 2004;59(2):100–104.

Greineder DK, Loane KC, Parks P. A randomized controlled trial of a pediatric asthma outreach program. *J Allergy Clin Immunol* 1999;103(3 Pt 1):436–440.

Grembiale RD, Pelaia G, Naty S, Varella A, Tranfa CM, Marsico SA. Comparison of the bronchodilating effects of inhaled formoterol, salmeterol and salbutamol in asthmatic patients. *Pulm Pharmacol Ther* 2002;15(5):463–466.

Griese M, Koch M, Latzin P, Beck J. Asthma severity, recommended changes of inhaled therapy and exhaled nitric oxide in children: a prospective, blinded trial. *Eur J Med Res* 2000;5(8):334–340.

Griffiths C, Kaur G, Gantley M, Feder G, Hillier S, Goddard J, Packe G. Influences on hospital admission for asthma in south Asian and white adults: qualitative interview study. *BMJ* 2001;323(7319):962–966.

Griffiths C, Foster G, Barnes N, Eldridge S, Tate H, Begum S, Wiggins M, Dawson C, Livingstone AE, Chambers M et al. Specialist nurse intervention to reduce unscheduled asthma care in a deprived multiethnic area: the east London randomised controlled trial for high risk asthma (ELECTRA). *BMJ* 2004;328(7432):144.

Grigoreas C, Vourdas D, Petalas K, Simeonidis G, Demeroutis I, Tsoulous T. Nasal polyps in patients with rhinitis and asthma. *Allergy Asthma Proc* 2002;23(3):169–174.

Grischkan J, Storfer-Isser A, Rosen CL, Larkin EK, Kirchner HL, South A, Wilson-Costello DC, Martin RJ, Redline S. Variation in childhood asthma among former preterm infants. *J Pediatr* 2004;144(3):321–326.

Griswold SK, Nordstrom CR, Clark S, Gaeta TJ, Price ML, Camargo CA Jr. Asthma exacerbations in North American adults: who are the "frequent fliers" in the emergency department? *Chest* 2005;127(5):1579–1586.

Groeben H, Silvanus MT, Beste M, Peters J. Combined lidocaine and salbutamol inhalation for airway anesthesia markedly protects against reflex bronchoconstriction. *Chest* 2000;118(2):509–515.

Gronnerod TA, von Berg A, Schwabe G, Soliman S. Formoterol via Turbuhaler gave better protection than terbutaline against repeated exercise challenge for up to 12 hours in children and adolescents. *Respir Med* 2000;94(7):661–667.

Grootendorst DC, Sterk PJ, Heijerman HG. Effect of oral prednisolone on the bronchoprotective effect of formoterol in patients with persistent asthma. *Eur Respir J* 2001;17(3):374–379.

Gross G, Cohen RM, Guy H. Efficacy response of inhaled HFA-albuterol delivered via the breath-actuated Autohaler inhalation device is comparable to dose in patients with asthma. *J Asthma* 2003;40(5):487–495.

Grossman J, Faiferman I, Dubb JW, Tompson DJ, Busse W, Bronsky E, Montanaro A, Southern L, Tinkelman D. Results of the first U.S. double-blind, placebo-controlled, multicenter clinical study in asthma with pranlukast, a novel leukotriene receptor antagonist. *J Asthma* 1997;34(4):321–328.

Grossman J, Smith LJ, Wilson AM, Thyrum PT. Long-term safety and efficacy of zafirlukast in the treatment of asthma: interim results of an open-label extension trial. *Ann Allergy Asthma Immunol* 1999;82(4):361–369.

Gruber W, Eber E, Mileder P, Modl M, Weinhandl E, Zach MS. Effect of specific immunotherapy with house dust mite extract on the bronchial responsiveness of paediatric asthma patients. *Clin Exp Allergy* 1999;29(2):176–181.

Gruber W, Eber E, Malle-Scheid D, Pfleger A, Weinhandl E, Dorfer L, Zach MS. Laser acupuncture in children and adolescents with exercise induced asthma. *Thorax* 2002;57(3):222–225.

Gruchalla RS, Gan V, Roy L, Bokovoy J, McDermott S, Lawrence G, Hynan L, Luckett P. Results of an inner-city school-based asthma and allergy screening pilot study: a combined approach using written questionnaires and step testing. *Ann Allergy Asthma Immunol* 2003;90(5):491–499.

Grunberg K, Smits HH, Timmers MC, de Klerk EP, Dolhain RJ, Dick EC, Hiemstra PS, Sterk PJ. Experimental rhinovirus 16 infection. Effects on cell differentials and soluble markers in sputum in asthmatic subjects. *Am J Respir Crit Care Med* 1997;156(2 Pt 1):609–616.

Grunberg K, Sharon RF, Hiltermann TJ, Brahim JJ, Dick EC, Sterk PJ, van Krieken JH. Experimental rhinovirus 16 infection increases intercellular adhesion molecule-1 expression in bronchial epithelium of asthmatics regardless of inhaled steroid treatment. *Clin Exp Allergy* 2000;30(7):1015–1023.

Grunberg K, Sharon RF, Sont JK, In 't V, van Schadewijk WA, de Klerk EP, Dick CR, van Krieken JH, Sterk PJ. Rhinovirus-induced airway inflammation in asthma: effect of treatment with inhaled corticosteroids before and during experimental infection. *Am J Respir Crit Care Med* 2001;164(10 Pt 1):1816–1822.

Grunfeld A, Beveridge RC, Berkowitz J, FitzGerald JM. Management of acute asthma in Canada: an assessment of emergency physician behaviour. *J Emerg Med* 1997;15(4):547–556.

Gryglicka B, Wegrzyn-Szkutnik I, Michnar M, Mazur E, Niedzwiadek J, Milanowski J. Evaluation of an anti-chlamydial antibiotic therapy influence on asthma patients. *Ann Univ Mariae Curie Skłodowska [Med]* 2003;58(1):444–451.

Guendelman S, Meade K, Benson M, Chen YQ, Samuels S. Improving asthma outcomes and self-management behaviors of inner-city children: a randomized trial of the Health Buddy interactive device and an asthma diary. *Arch Pediatr Adolesc Med* 2002;156(2):114–120.

Guerra S, Sherrill DL, Martinez FD, Barbee RA. Rhinitis as an independent risk factor for adult-onset asthma. *J Allergy Clin Immunol* 2002;109(3):419–425.

Guerra S, Sherrill DL, Bobadilla A, Martinez FD, Barbee RA. The relation of body mass index to asthma, chronic bronchitis, and emphysema. *Chest* 2002;122(4):1256–1263.

Guerra S, Wright AL, Morgan WJ, Sherrill DL, Holberg CJ, Martinez FD. Persistence of asthma symptoms during adolescence: role of obesity and age at the onset of puberty. *Am J Respir Crit Care Med* 2004;170(1):78–85.

Guerra S, Lohman IC, Halonen M, Martinez FD, Wright AL. Reduced interferon gamma production and soluble CD14 levels in early life predict recurrent wheezing by 1 year of age. *Am J Respir Crit Care Med* 2004;169(1):70–76.

Guevara JP, Wolf FM, Grum CM, Clark NM. Effects of educational interventions for self management of asthma in children and adolescents: systematic review and meta-analysis. *BMJ* 2003;326(7402):1308–1309.

Guler N, Kirerleri E, Ones U, Tamay Z, Salmayenli N, Darendeliler F. Leptin: does it have any role in childhood asthma? *J Allergy Clin Immunol* 2004;114(2):254–259.

Gupchup GV, Hubbard JH, Teel MA, Singhal PK, Tonrey L, Riley K, Rupp MT, Coultas DB. Developing a community-specific health-related quality of life (HRQOL) questionnaire for asthma: the Asthma-Specific Quality of Life Questionnaire for Native American Adults (AQLQ-NAA). *J Asthma* 2001;38(2):169–178.

Gupta D, Aggarwal AN, Subalaxmi MV, Jindal SK. Assessing severity of asthma: spirometric correlates with visual analogue scale (VAS). *Indian J Chest Dis Allied Sci* 2000;42(2):95–100.

Gupta D, Aggarwal AN, Kumar R, Jindal SK. Prevalence of bronchial asthma and association with environmental tobacco smoke exposure in adolescent school children in Chandigarh, north India. *J Asthma* 2001;38(6):501–507.

Gupta D, Aggarwal AN, Chaudhry K, Chhabra SK, D'Souza GA, Jindal SK, Katiyar SK, Kumar R, Shah B, Vijayan VK. Household environmental tobacco smoke exposure, respiratory symptoms and asthma in non-smoker adults: a multicentric population study from India. *Indian J Chest Dis Allied Sci* 2006;48(1):31–36.

Gupta I, Gupta V, Parihar A, Gupta S, Ludtke R, Safayhi H, Ammon HP. Effects of *Boswellia serrata* gum resin in patients with bronchial asthma: results of a double-blind, placebo-controlled, 6-week clinical study. *Eur J Med Res* 1998;3(11):511–514.

Gupta SK, Kaleekal T, Joshi S. Misuse of corticosteroids in some of the drugs dispensed as preparations from alternative systems of medicine in India. *Pharmacoepidemiol Drug Saf* 2000;9(7):599–602.

Gupta VK, Cheifetz IM. Heliox administration in the pediatric intensive care unit: an evidence-based review. *Pediatr Crit Care Med* 2005;6(2):204–211.

Gurkan F, Haspolat K, Bosnak M, Dikici B, Derman O, Ece A. Intravenous magnesium sulphate in the management of moderate to severe acute asthmatic children nonresponding to conventional therapy. *Eur J Emerg Med* 1999;6(3):201–205.

Gurkan F, Ece A, Haspolat K, Derman O, Bosnak M. Predictors for multiple hospital admissions in children with asthma. *Can Respir J* 2000;7(2):163–166.

Gurkan F, Atamer Y, Ece A, Kocyigit Y, Tuzun H, Mete N. Serum leptin levels in asthmatic children treated with an inhaled corticosteroid. *Ann Allergy Asthma Immunol* 2004;93(3):277–280.

Gustafsson P, Kallman S, Whitehead PJ. Clinical equivalence between salbutamol hydrofluoroalkane pMDI and salbutamol Turbuhaler at the same cumulative microgram doses in paediatric patients. *Respir Med* 2002;96(11):957–959.

Gustafsson PM. Pulmonary gas trapping increases in asthmatic children and adolescents in the supine position. *Pediatr Pulmonol* 2003;36(1):34–42.

Gutglass DJ, Hampers L, Roosevelt G, Teoh D, Nimmagadda SR, Krug SE. Undiluted albuterol aerosols in the pediatric emergency department. *Pediatrics* 2000;105(5):E67.

Guy ES, Kirumaki A, Hanania NA. Acute asthma in pregnancy. *Crit Care Clin* 2004;20(4):731–745, x.

Gyllfors P, Bochenek G, Overholt J, Drupka D, Kumlin M, Sheller J, Nizankowska E, Isakson PC, Mejza F, Lefkowith JB, et al. Biochemical and clinical evidence that aspirin-intolerant asthmatic subjects tolerate the cyclooxygenase 2-selective analgetic drug celecoxib. *J Allergy Clin Immunol* 2003;111(5):1116–1121.

Gyorik SA, Brutsche MH. Complementary and alternative medicine for bronchial asthma: is there new evidence? *Curr Opin Pulm Med* 2004;10(1):37–43.

Haave E, Hyland ME. Norwegian versions of the Living with Asthma Questionnaire (LWAQ) and Asthma Bother Profile (ABP), validation and comparison of two asthma groups. *Scand J Psychol* 2004;45(2):163–167.

Habashy D, Lam LT, Browne GJ. The administration of beta<sub>2</sub>-agonists for paediatric asthma and its adverse reaction in Australian and New Zealand emergency departments: a cross-sectional survey. *Eur J Emerg Med* 2003;10(3):219–224.

Haby MM, Peat JK, Marks GB, Woolcock AJ, Leeder SR. Asthma in preschool children: prevalence and risk factors. *Thorax* 2001;56(8):589–595.

Haby MM, Waters E, Robertson CF, Gibson PG, Ducharme FM. Interventions for educating children who have attended the emergency room for asthma. *Cochrane Database Syst Rev* 2001;(1):CD001290.

Hackman RM, Stern JS, Gershwin ME. Hypnosis and asthma: a critical review. *J Asthma* 2000;37(1):1–15.

Haggerty CL, Ness RB, Kelsey S, Waterer GW. The impact of estrogen and progesterone on asthma. *Ann Allergy Asthma Immunol* 2003;90(3):284–291.

Hahn DL, McDonald R. Can acute Chlamydia pneumoniae respiratory tract infection initiate chronic asthma? *Ann Allergy Asthma Immunol* 1998;81(4):339–344.

Hahn DL, Peeling RW, Dillon E, McDonald R, Saikku P. Serologic markers for Chlamydia pneumoniae in asthma. *Ann Allergy Asthma Immunol* 2000;84(2):227–233.

Hak E, Rovers MM, Sachs AP, Stalman WA, Verheij TJ. Is asthma in 2–12-year-old children associated with physician-attended recurrent upper respiratory tract infections? *Eur J Epidemiol* 2003;18(9):899–902.

Hakansson S, Kallen K. Caesarean section increases the risk of hospital care in childhood for asthma and gastroenteritis. *Clin Exp Allergy* 2003;33(6):757–764.

Halken S, Host A, Nikkisen U, Hansen LG, Nielsen F, Pedersen S, Osterballe O, Veggerby C, Poulsen LK. Effect of mattress and pillow encasings on children with asthma and house dust mite allergy. *J Allergy Clin Immunol* 2003;111(1):169–176.

Hall CB, Wakefield D, Rowe TM, Carlisle PS, Cloutier MM. Diagnosing pediatric asthma: validating the Easy Breathing Survey. *J Pediatr* 2001;139(2):267–272.

Hallstrand TS, Ault KA, Bates PW, Mitchell J, Schoene RB. Peripheral blood manifestations of T(H)2 lymphocyte activation in stable atopic asthma and during exercise-induced bronchospasm. *Ann Allergy Asthma Immunol* 1998;80(5):424–432.

Hallstrand TS, Bates PW, Schoene RB. Aerobic conditioning in mild asthma decreases the hyperpnea of exercise and improves exercise and ventilatory capacity. *Chest* 2000;118(5):1460–1469.

Hallstrand TS, Curtis JR, Koepsell TD, Martin DP, Schoene RB, Sullivan SD, Yorioka GN, Aitken ML. Effectiveness of screening examinations to detect unrecognized exercise-induced bronchoconstriction. *J Pediatr* 2002;141(3):343–348.

Hallstrand TS, Curtis JR, Aitken ML, Sullivan SD. Quality of life in adolescents with mild asthma. *Pediatr Pulmonol* 2003;36(6):536–543.

Hallstrand TS, Moody MW, Wurfel MM, Schwartz LB, Henderson WR Jr, Aitken ML. Inflammatory basis of exercise-induced bronchoconstriction. *Am J Respir Crit Care Med* 2005;172(6):679–686.

Halonen M, Stern DA, Wright AL, Taussig LM, Martinez FD. Alternaria as a major allergen for asthma in children raised in a desert environment. *Am J Respir Crit Care Med* 1997;155(4):1356–1361.

Halonen M, Stern DA, Lohman C, Wright AL, Brown MA, Martinez FD. Two subphenotypes of childhood asthma that differ in maternal and paternal influences on asthma risk. *Am J Respir Crit Care Med* 1999;160(2):564–570.

Halpern MT, Khan ZM, Stanford RH, Spayde KM, Golubiewski M. Asthma: resource use and costs for inhaled corticosteroid vs leukotriene modifier treatment—a meta-analysis. *J Fam Pract* 2003;52(5):382–389.

Halpern MT, Schmier JK, Richner R, Guo C, Togias A. Allergic rhinitis: a potential cause of increased asthma medication use, costs, and morbidity. *J Asthma* 2004;41(1):117–126.

Halterman JS, Yoos HL, Sidora K, Kitzman H, McMullen A. Medication use and health care contacts among symptomatic children with asthma. *Ambul Pediatr* 2001;1(5):275–279.

Halterman JS, Yoos HL, Kaczorowski JM, McConnochie K, Holzhauer RJ, Conn KM, Lauver S, Szilagyi PG. Providers underestimate symptom severity among urban children with asthma. *Arch Pediatr Adolesc Med* 2002;156(2):141–146.

Halterman JS, McConnochie KM, Conn KM, Yoos HL, Kaczorowski JM, Holzhauer RJ, Allan M, Szilagyi PG. A potential pitfall in provider assessments of the quality of asthma control. *Ambul Pediatr* 2003;3(2):102–105.

Halterman JS, Szilagyi PG, Yoos HL, Conn KM, Kaczorowski JM, Holzhauer RJ, Lauver SC, Neely TL, Callahan PM, McConnochie KM. Benefits of a school-based asthma treatment program in the absence of secondhand smoke exposure: results of a randomized clinical trial. *Arch Pediatr Adolesc Med* 2004;158(5):460–467.

Halterman JS, McConnochie KM, Conn KM, Yoos HL, Callahan PM, Neely TL, Szilagyi PG. A randomized trial of primary care provider prompting to enhance preventive asthma therapy. *Arch Pediatr Adolesc Med* 2005;159(5):422–427.

Hamerman SI, Becker JM, Rogers J, Quedenfeld TC, D'Alonzo GE Jr. Asthma screening of high school athletes: identifying the undiagnosed and poorly controlled. *Ann Allergy Asthma Immunol* 2002;88(4):380–384.

- Hanania NA, Sockrider M, Castro M, Holbrook JT, Tonascia J, Wise R, Atmar RL. Immune response to influenza vaccination in children and adults with asthma: effect of corticosteroid therapy. *J Allergy Clin Immunol* 2004;113(4):717–724.
- Hanazawa T, Kharitonov SA, Barnes PJ. Increased nitrotyrosine in exhaled breath condensate of patients with asthma. *Am J Respir Crit Care Med* 2000;162(4 Pt 1):1273–1276.
- Hancox RJ, Cowan JO, Flannery EM, Herbison GP, McLachlan CR, Taylor DR. Bronchodilator tolerance and rebound bronchoconstriction during regular inhaled beta-agonist treatment. *Respir Med* 2000;94(8):767–771.
- Hancox RJ, Subbarao P, Kamada D, Watson RM, Hargreave FE, Inman MD. Beta<sub>2</sub>-agonist tolerance and exercise-induced bronchospasm. *Am J Respir Crit Care Med* 2002;165(8):1068–1070.
- Hancox RJ, Milne BJ, Taylor DR, Greene JM, Cowan JO, Flannery EM, Herbison GP, McLachlan CR, Poulton R, Sears MR. Relationship between socioeconomic status and asthma: a longitudinal cohort study. *Thorax* 2004;59(5):376–380.
- Handelman L, Rich M, Bridgemohan CF, Schneider L. Understanding pediatric inner-city asthma: an explanatory model approach. *J Asthma* 2004;41(2):167–177.
- Handley DA, Tinkelman D, Noonan M, Rollins TE, Snider ME, Caron J. Dose-response evaluation of levalbuterol versus racemic albuterol in patients with asthma. *J Asthma* 2000;37(4):319–327.
- Hansen EF, Vestbo J, Phanareth K, Kok-Jensen A, Dirksen A. Peak flow as predictor of overall mortality in asthma and chronic obstructive pulmonary disease. *Am J Respir Crit Care Med* 2001;163(3 Pt 1):690–693.
- Harari M, Barzillai R, Shani J. Magnesium in the management of asthma: critical review of acute and chronic treatments, and Deutsches Medizinisches Zentrum's (DMZ's) clinical experience at the Dead Sea. *J Asthma* 1998;35(7):525–536.
- Hardie GE, Janson S, Gold WM, Carrieri-Kohlman V, Boushey HA. Ethnic differences: word descriptors used by African-American and white asthma patients during induced bronchoconstriction. *Chest* 2000;117(4):935–943.
- Hardie GE, Gold WM, Janson S, Carrieri-Kohlman V, Boushey HA. Understanding how asthmatics perceive symptom distress during a methacholine challenge. *J Asthma* 2002;39(7):611–618.
- Harding SM, Guzzo MR, Richter JE. The prevalence of gastroesophageal reflux in asthma patients without reflux symptoms. *Am J Respir Crit Care Med* 2000;162(1):34–39.
- Harik-Khan RI, Muller DC, Wise RA. Serum vitamin levels and the risk of asthma in children. *Am J Epidemiol* 2004;159(4):351–357.
- Harju T, Keistinen T, Tuuponen T, Kivela SL. Seasonal variation in childhood asthma hospitalisations in Finland, 1972–1992. *Eur J Pediatr* 1997;156(6):436–439.

Harju T, Tuuponen T, Keistinen T, Kivela SL. Seasonal variations in hospital treatment periods and deaths among adult asthmatics. *Eur Respir J* 1998;12(6):1362–1365.

Harkins MS, Fiato KL, Iwamoto GK. Exhaled nitric oxide predicts asthma exacerbation. *J Asthma* 2004;41(4):471–476.

Harris GS, Shearer AG. Beliefs that support the behavior of people with asthma: a qualitative investigation. *J Asthma* 2001;38(5):427–434.

Harrison TW, Wisniewski A, Honour J, Tattersfield AE. Comparison of the systemic effects of fluticasone propionate and budesonide given by dry powder inhaler in healthy and asthmatic subjects. *Thorax* 2001;56(3):186–191.

Harrison TW, Oborne J, Newton S, Tattersfield AE. Doubling the dose of inhaled corticosteroid to prevent asthma exacerbations: randomised controlled trial. *Lancet* 2004;363(9405):271–275.

Hart SP. Should aminophylline be abandoned in the treatment of acute asthma in adults? *QJM* 2000;93(11):761–765.

Hart SR, Davidson AC. Acute adult asthma—assessment of severity and management and comparison with British Thoracic Society Guidelines. *Respir Med* 1999;93(1):8–10.

Hartert TV, Togias A, Mellen BG, Mitchel EF, Snowden MS, Griffin MR. Underutilization of controller and rescue medications among older adults with asthma requiring hospital care. *J Am Geriatr Soc* 2000;48(6):651–657.

Hartert TV, Speroff T, Togias A, Mitchel EF Jr, Snowden MS, Dittus RS, Griffin MR. Risk factors for recurrent asthma hospital visits and death among a population of indigent older adults with asthma. *Ann Allergy Asthma Immunol* 2002;89(5):467–473.

Hasani A, Toms N, O'Connor J, Dilworth JP, Agnew JE. Effect of salmeterol xinafoate on lung mucociliary clearance in patients with asthma. *Respir Med* 2003;97(6):667–671.

Hasegawa T, Ishihara K, Takakura S, Fujii H, Nishimura T, Okazaki M, Katakami N, Umeda B. Duration of systemic corticosteroids in the treatment of asthma exacerbation; a randomized study. *Intern Med* 2000;39(10):794–797.

Hashimoto M, Fujishima T, Tanaka H, Kon H, Saikai T, Suzuki A, Nakatsugawa M, Abe S. Churg-Strauss syndrome after reduction of inhaled corticosteroid in a patient treated with pranlukast for asthma. *Intern Med* 2001;40(5):432–434.

Hawkins G, McMahon AD, Twaddle S, Wood SF, Ford I, Thomson NC. Stepping down inhaled corticosteroids in asthma: randomised controlled trial. *BMJ* 2003;326(7399):1115.

Hawksworth GM, James L, Chrystyn H. Characterization of the inspiratory manoeuvre when asthmatics inhale through a Turbohaler pre- and post-counselling in a community pharmacy. *Respir Med* 2000;94(5):501–504.

Hawksworth RJ, Sykes AP, Faris M, Mant T, Lee TH. Albuterol HFA is as effective as albuterol CFC in preventing exercise-induced bronchoconstriction. *Ann Allergy Asthma Immunol* 2002;88(5):473–477.

Heaney LG, Conway E, Kelly C, Johnston BT, English C, Stevenson M, Gamble J. Predictors of therapy resistant asthma: outcome of a systematic evaluation protocol. *Thorax* 2003;58(7):561–566.

Heffern WA, Davis TM, Ross CJ. A case study of comorbidities: vocal cord dysfunction, asthma, and panic disorder. *Clin Nurs Res* 2002;11(3):324–340.

Heinig JH, Boulet LP, Croonenborghs L, Mollers MJ. The effect of high-dose fluticasone propionate and budesonide on lung function and asthma exacerbations in patients with severe asthma. *Respir Med* 1999;93(9):613–620.

Helenius I, Lumme A, Ounap J, Obase Y, Rytila P, Sarna S, Alaranta A, Remes V, Haahtela T. No effect of montelukast on asthma-like symptoms in elite ice hockey players. *Allergy* 2004;59(1):39–44.

Hellgren J, Toren K, Balder B, Palmqvist M, Lowhagen O, Karlsson G. Increased nasal mucosal swelling in subjects with asthma. *Clin Exp Allergy* 2002;32(1):64–69.

Hemmann S, Menz G, Ismail C, Blaser K, Crameri R. Skin test reactivity to 2 recombinant *Aspergillus fumigatus* allergens in *A.fumigatus*-sensitized asthmatic subjects allows diagnostic separation of allergic bronchopulmonary aspergillosis from fungal sensitization. *J Allergy Clin Immunol* 1999;104(3 Pt 1):601–607.

Hemmingsen A, Fryer AA, Hepple M, Strange RC, Spiteri MA. Simultaneous identification of GSTP1 Ile105 $\Rightarrow$ Val105 and Ala114 $\Rightarrow$ Val114 substitutions using an amplification refractory mutation system polymerase chain reaction assay: studies in patients with asthma. *Respir Res* 2001;2(4):255–260.

Hendeles L, Beaty R, Ahrens R, Stevens G, Harman EM. Response to inhaled albuterol during nocturnal asthma. *J Allergy Clin Immunol* 2004;113(6):1058–1062.

Hendeles L, Marshik PL, Ahrens R, Kifle Y, Shuster J. Response to nonprescription epinephrine inhaler during nocturnal asthma. *Ann Allergy Asthma Immunol* 2005;95(6):530–534.

Henderson CE, Ownby DR, Trumble A, DerSimonian R, Kellner LH. Predicting asthma severity from allergic sensitivity to cockroaches in pregnant inner city women. *J Reprod Med* 2000;45(4):341–344.

Henderson SO, Acharya P, Kilaghbian T, Perez J, Korn CS, Chan LS. Use of heliox-driven nebulizer therapy in the treatment of acute asthma. *Ann Emerg Med* 1999;33(2):141–146.

Henneberger PK, Hoffman CD, Magid DJ, Lyons EE. Work-related exacerbation of asthma. *Int J Occup Environ Health* 2002;8(4):291–296.

Henriksen AH, Tveit KH, Holmen TL, Sue-Chu M, Bjermer L. A study of the association between exercise-induced wheeze and exercise versus methacholine-induced bronchoconstriction in adolescents. *Pediatr Allergy Immunol* 2002;13(3):203–208.

Henriksen AH, Holmen TL, Bjermer L. Gender differences in asthma prevalence may depend on how asthma is defined. *Respir Med* 2003;97(5):491–497.

Henry RL, Gibson PG, Vimpani GV, Francis JL, Hazell J. Randomized controlled trial of a teacher-led asthma education program. *Pediatr Pulmonol* 2004;38(6):434–442.

Hensley MJ, Chalmers A, Clover K, Gibson PG, Toneguzzi R, Lewis PR. Symptoms of asthma: comparison of a parent-completed retrospective questionnaire with a prospective daily symptom diary. *Pediatr Pulmonol* 2003;36(6):509–513.

Hepburn MJ, Dooley DP, Morris MJ. The effects of estrogen replacement therapy on airway function in postmenopausal, asthmatic women. *Arch Intern Med* 2001;161(22):2717–2720.

Hess HM, Curley RM, Chinchilli VM, Cherniack RM, Evans RL. Modern remote support of pulmonary-function testing and quality control systems. *Control Clin Trials* 2001;22(6 Suppl):156S–167S.

Hesselink AE, Penninx BW, Wijnhoven HA, Kriegerman DM, van Eijk JT. Determinants of an incorrect inhalation technique in patients with asthma or COPD. *Scand J Prim Health Care* 2001;19(4):255–260.

Hesselink AE, Penninx BW, Schlosser MA, Wijnhoven HA, van der Windt DA, Kriegerman DM, van Eijk JT. The role of coping resources and coping style in quality of life of patients with asthma or COPD. *Qual Life Res* 2004;13(2):509–518.

Hesselink AE, Penninx BW, van der Windt DA, van Duin BJ, de Vries P, Twisk JW, Bouter LM, van Eijk JT. Effectiveness of an education programme by a general practice assistant for asthma and COPD patients: results from a randomised controlled trial. *Patient Educ Couns* 2004;55(1):121–128.

Hesselmar B, Aberg N, Aberg B, Eriksson B, Bjorksten B. Does early exposure to cat or dog protect against later allergy development? *Clin Exp Allergy* 1999;29(5):611–617.

Heuck C, Heickendorff L, Wolthers OD. A randomised controlled trial of short term growth and collagen turnover in asthmatics treated with inhaled formoterol and budesonide. *Arch Dis Child* 2000;83(4):334–339.

Higashi N, Taniguchi M, Mita H, Osame M, Akiyama K. A comparative study of eicosanoid concentrations in sputum and urine in patients with aspirin-intolerant asthma. *Clin Exp Allergy* 2002;32(10):1484–1490.

Higgins BG, Francis HC, Yates C, Warburton CJ, Fletcher AM, Pickering CA, Woodcock AA. Environmental exposure to air pollution and allergens and peak flow changes. *Eur Respir J* 2000;16(1):61–66.

Higgins JC, Kiser WR, McClenathan S, Tynan NL. Influence of an interventional program on resource use and cost in pediatric asthma. *Am J Manag Care* 1998;4(10):1465–1469.

Hijazi Z, Abdulmalek AK, Al Taweel F, Al Shareda S. Hospital management of children with acute asthma exacerbations in Kuwait: adherence to international guidelines. *Med Princ Pract* 2002;11(3):126–130.

Hill DJ, Thompson PJ, Stewart GA, Carlin JB, Nolan TM, Kemp AS, Hosking CS. The Melbourne house dust mite study: eliminating house dust mites in the domestic environment. *J Allergy Clin Immunol* 1997;99(3):323–329.

Hill J, Lewis S, Britton J. Studies of the effects of inhaled magnesium on airway reactivity to histamine and adenosine monophosphate in asthmatic subjects. *Clin Exp Allergy* 1997;27(5):546–551.

Hilliard TN, Witten H, Male IA, Hewer SL, Seddon PC. Management of acute childhood asthma: a prospective multicentre study. *Eur Respir J* 2000;15(6):1102–1105.

Hiltermann JT, Lapperre TS, van Bree L, Steerenberg PA, Brahim JJ, Sont JK, Sterk PJ, Hiemstra PS, Stolk J. Ozone-induced inflammation assessed in sputum and bronchial lavage fluid from asthmatics: a new noninvasive tool in epidemiologic studies on air pollution and asthma. *Free Radic Biol Med* 1999;27(11–12):1448–1454.

Hirono O, Kubota I, Minamihaba O, Fatema K, Kato S, Nakamura H, Tomoike H. Left ventricular diastolic dysfunction in patients with bronchial asthma with long-term oral beta<sub>2</sub>-adrenoceptor agonists. *Am Heart J* 2001;142(6):E11.

Hirsch T, Weiland SK, von Mutius E, Safeca AF, Grafe H, Csaplovics E, Duhme H, Keil U, Leupold W. Inner city air pollution and respiratory health and atopy in children. *Eur Respir J* 1999;14(3):669–677.

Hirshberg AJ, Holliman CJ, Wuerz RC, Chapman DM. Case management by physician assistants and primary care physicians vs emergency physicians. *Acad Emerg Med* 1997;4(11):1046–1052.

Hirst PH, Bacon RE, Pitcairn GR, Silvasti M, Newman SP. A comparison of the lung deposition of budesonide from Easyhaler, Turbuhaler and pMDI plus spacer in asthmatic patients. *Respir Med* 2001;95(9):720–727.

Ho AM, Lee A, Karmakar MK, Dion PW, Chung DC, Contardi LH. Heliox vs air-oxygen mixtures for the treatment of patients with acute asthma: a systematic overview. *Chest* 2003;123(3):882–890.

Ho LP, Wood FT, Robson A, Innes JA, Greening AP. The current single exhalation method of measuring exhaled nitric oxide is affected by airway calibre. *Eur Respir J* 2000;15(6):1009–1013.

Hockemeyer J, Smyth J. Evaluating the feasibility and efficacy of a self-administered manual-based stress management intervention for individuals with asthma: results from a controlled study. *Behav Med* 2002;27(4):161–172.

Hodson T, Custovic A, Simpson A, Chapman M, Woodcock A, Green R. Washing the dog reduces dog allergen levels, but the dog needs to be washed twice a week. *J Allergy Clin Immunol* 1999;103(4):581–585.

Hofmann D, Hecker M, Volp A. Efficacy of dry extract of ivy leaves in children with bronchial asthma—a review of randomized controlled trials. *Phytomedicine* 2003;10(2–3):213–220.

Holcroft CA, Eisen EA, Sama SR, Wegman DH. Measurement characteristics of peak expiratory flow. *Chest* 2003;124(2):501–510.

Holgate S, Bousquet J, Wenzel S, Fox H, Liu J, Castellsague J. Efficacy of omalizumab, an anti-immunoglobulin E antibody, in patients with allergic asthma at high risk of serious asthma-related morbidity and mortality. *Curr Med Res Opin* 2001;17(4):233–240.

Holgate ST, Chuchalin AG, Hebert J, Lotvall J, Persson GB, Chung KF, Bousquet J, Kerstjens HA, Fox H, Thirlwell J, et al.; Omalizumab 011 International Study Group. Efficacy and safety of a recombinant anti-immunoglobulin E antibody (omalizumab) in severe allergic asthma. *Clin Exp Allergy* 2004;34(4):632–638.

Holloway E Ram FS. Breathing exercises for asthma. *Cochrane Database Syst Rev* 2000;(3):CD001277.

Holloway E Ram FS. Breathing exercises for asthma. *Cochrane Database Syst Rev* 2004;(1):CD001277.

Holzer K, Anderson SD, Douglass J. Exercise in elite summer athletes: challenges for diagnosis. *J Allergy Clin Immunol* 2002;110(3):374–380.

Holzer K, Anderson SD, Chan HK, Douglass J. Mannitol as a challenge test to identify exercise-induced bronchoconstriction in elite athletes. *Am J Respir Crit Care Med* 2003;167(4):534–537.

Holzheimer L, Mohay H, Masters IB. Educating young children about asthma: comparing the effectiveness of a developmentally appropriate asthma education video tape and picture book. *Child Care Health Dev* 1998;24(1):85–99.

Homer C, Susskind O, Alpert HR, Owusu M, Schneider L, Rappaport LA, Rubin DH. An evaluation of an innovative multimedia educational software program for asthma management: report of a randomized, controlled trial. *Pediatrics* 2000;106(1 Pt 2):210–215.

Homma M, Minami M, Taniguchi C, Oka K, Morita S, Niitsuma T, Hayashi T. Inhibitory effects of lignans and flavonoids in saiboku-to, a herbal medicine for bronchial asthma, on the release of leukotrienes from human polymorphonuclear leukocytes. *Planta Med* 2000;66(1):88–91.

Homs-Corbera A, Fiz JA, Morera J, Jane R. Time-frequency detection and analysis of wheezes during forced exhalation. *IEEE Trans Biomed Eng* 2004;51(1):182–186.

Hondras MA, Linde K, Jones AP. Manual therapy for asthma. *Cochrane Database Syst Rev* 2005;(2):CD001002.

Hopman WM, Garvey N, Olajos-Clow J, White-Markham A, Lougheed MD. Outcomes of asthma education: results of a multisite evaluation. *Can Respir J* 2004;11(4):291–297.

Hoppin JA, Umbach DM, London SJ, Alavanja MC, Sandler DP. Chemical predictors of wheeze among farmer pesticide applicators in the Agricultural Health Study. *Am J Respir Crit Care Med* 2002;165(5):683–689.

Horiguchi T, Tachikawa S, Kondo R, Miyazaki J, Sasaki Y, Banno K, Handa M. Evaluation of the combined effect of pranlukast during high-dose steroid inhalation. *Arzneimittelforschung* 2002;52(11):813–816.

Horner SD. Using the Open Airways curriculum to improve self-care for third grade children with asthma. *J Sch Health* 1998;68(8):329–333.

Hoshino M, Takahashi M, Takai Y, Sim J, Aoike N. Inhaled corticosteroids decrease vascularity of the bronchial mucosa in patients with asthma. *Clin Exp Allergy* 2001;31(5):722–730.

Hoskins G, Neville RG, Smith B, Clark RA. Does participation in distance learning and audit improve the care of patients with acute asthma attacks? The General Practitioners in Asthma Group. *Health Bull (Edinb)* 1997;55(3):150–155.

Hoskins G, McCowan C, Neville RG, Thomas GE, Smith B, Silverman S. Risk factors and costs associated with an asthma attack. *Thorax* 2000;55(1):19–24.

Hoskins G, Neville R, Smith B, Steven K, Barnes G, Loveridge T, Sergeant E, Dempster J. Asthma care by nurse practitioners in the United States. *J Am Acad Nurse Pract* 2001;13(8):376–383.

Hovell MF, Meltzer SB, Wahlgren DR, Matt GE, Hofstetter CR, Jones JA, Meltzer EO, Bernert JT, Pirkle JL. Asthma management and environmental tobacco smoke exposure reduction in Latino children: a controlled trial. *Pediatrics* 2002;110(5):946–956.

Htut T, Higenbottam TW, Gill GW, Darwin R, Anderson PB, Syed N. Eradication of house dust mite from homes of atopic asthmatic subjects: a double-blind trial. *J Allergy Clin Immunol* 2001;107(1):55–60.

Hu FB, Persky V, Flay BR, Richardson J. An epidemiological study of asthma prevalence and related factors among young adults. *J Asthma* 1997;34(1):67–76.

Hu FB, Persky V, Flay BR, Zelli A, Cooksey J, Richardson J. Prevalence of asthma and wheezing in public schoolchildren: association with maternal smoking during pregnancy. *Ann Allergy Asthma Immunol* 1997;79(1):80–84.

Hu J. Clinical observation on 25 cases of hormone dependent bronchial asthma treated by acupuncture. *J Tradit Chin Med* 1998;18(1):27–30.

Huang CJ, Wang CH, Liu WT, Yang MC, Lin HC, Yu CT, Shiao CJ, Tan CC, Yang CK, Kuo HP. Zafirlukast improves pulmonary function in patients with moderate persistent asthma receiving regular inhaled steroids: a prospective randomized control study. *Chang Gung Med J* 2003;26(8):554–560.

Huang MT, Yang YH, Lin YT, Lu MY, Wang LH, Tsai MJ, Chiang BL. Beta<sub>2</sub>-agonist exerts differential effects on the development of cord blood T cells but not on peripheral blood T cells. *Pediatr Allergy Immunol* 2001;12(1):17–20.

Huang ZJ, LaFleur BJ, Chamberlain JM, Guagliardo MF, Joseph JG. Inpatient childhood asthma treatment: relationship of hospital characteristics to length of stay and cost: analyses of New York State discharge data, 1995. *Arch Pediatr Adolesc Med* 2002;156(1):67–72.

Huggins JT, Kaplan A, Martin-Harris B, Sahn SA. Eucalyptus as a specific irritant causing vocal cord dysfunction. *Ann Allergy Asthma Immunol* 2004;93(3):299–303.

Hughes R, Goldkorn A, Masoli M, Weatherall M, Burgess C, Beasley R. Use of isotonic nebulised magnesium sulphate as an adjuvant to salbutamol in treatment of severe asthma in adults: randomised placebo-controlled trial. *Lancet* 2003;361(9375):2114–2117.

Hui SH, Leung TF, Ha G, Wong E, Li AM, Fok TF. Evaluation of an asthma management program for Chinese children with mild-to-moderate asthma in Hong Kong. *Pediatr Pulmonol* 2002;33(1):22–29.

Huittinen T, Hahn D, Anttila T, Wahlstrom E, Saikku P, Leinonen M. Host immune response to Chlamydia pneumoniae heat shock protein 60 is associated with asthma. *Eur Respir J* 2001;17(6):1078–1082.

Humbert M, Beasley R, Ayres J, Slavin R, Hebert J, Bousquet J, Beeh KM, Ramos S, Canonica GW, Hedgecock S, et al. Benefits of omalizumab as add-on therapy in patients with severe persistent asthma who are inadequately controlled despite best available therapy (GINA 2002 step 4 treatment): INNOVATE. *Allergy* 2005;60(3):309–316.

Hung CC, Chen YC, Mao HC, Chiang BL. Effects of systematic nursing instruction of mothers on using medication and on health status of asthmatic children. *J Nurs Res* 2002;10(1):22–32.

Hung CH, Hua YM, Lee MY, Tsai YG, Yang KD. Evaluation of different nebulized bronchodilators on clinical efficacy and hypokalemia in asthmatic children. *Acta Paediatr Taiwan* 2001;42(5):287–290.

Hung YF, Yang W, Chang ML. Supraventricular tachycardia after fenoterol inhalation: report of two cases. *Acta Paediatr Taiwan* 2003;44(3):165–167.

Hunt LW, Frigas E, Butterfield JH, Kita H, Blomgren J, Dunnette SL, Offord KP, Gleich GJ. Treatment of asthma with nebulized lidocaine: a randomized, placebo-controlled study. *J Allergy Clin Immunol* 2004;113(5):853–859.

Huntley A, Ernst E. Herbal medicines for asthma: a systematic review. *Thorax* 2000;55(11):925–929.

Huntley A, White AR, Ernst E. Relaxation therapies for asthma: a systematic review. *Thorax* 2002;57(2):127–131.

Huse DM, Russell MW, Weiss ST, Hartz SC. Anti-inflammatory therapy reduces total costs of asthma care compared with bronchodilation: the Asthma Outcomes Registry. *Am J Manag Care* 2000;6(9):1045–1050.

Huss K, Naumann PL, Mason PJ, Nanda JP, Huss RW, Smith CM, Hamilton RG. Asthma severity, atopic status, allergen exposure and quality of life in elderly persons. *Ann Allergy Asthma Immunol* 2001;86(5):524–530.

Huss K, Adkinson NF Jr, Eggleston PA, Dawson C, Van Natta ML, Hamilton RG. House dust mite and cockroach exposure are strong risk factors for positive allergy skin test responses in the Childhood Asthma Management Program. *J Allergy Clin Immunol* 2001;107(1):48–54.

- Huss K, Winkelstein M, Calabrese B, Butz A, Reshef S, Rand C, Gilpin A. Asthma management practices and education needs of head start directors and staff. *J Sch Health* 2002;72(8):329–333.
- Huss K, Winkelstein M, Nanda J, Naumann PL, Sloand ED, Huss RW. Computer game for inner-city children does not improve asthma outcomes. *J Pediatr Health Care* 2003;17(2):72–78.
- Huzel L, Roos LL, Anthonisen NR, Manfreda J. Diagnosing asthma: the fit between survey and administrative database. *Can Respir J* 2002;9(6):407–412.
- Hyndman SJ, Vickers LM, Htut T, Mauder JW, Peock A, Higenbottam TW. A randomized trial of dehumidification in the control of house dust mite. *Clin Exp Allergy* 2000;30(8):1172–1180.
- Hypponen E, Sovio U, Wjst M, Patel S, Pekkanen J, Hartikainen AL, Jarvelin MR. Infant vitamin D supplementation and allergic conditions in adulthood: northern Finland birth cohort 1966. *Ann N Y Acad Sci* 2004;1037:84–95.
- Ichinose M, Takahashi T, Sugiura H, Endoh N, Miura M, Mashito Y, Shirato K. Baseline airway hyperresponsiveness and its reversible component: role of airway inflammation and airway calibre. *Eur Respir J* 2000;15(2):248–253.
- Ignacio-Garcia JM, Pinto-Tenorio M, Chocron-Giraldez MJ, Cabello-Rueda F, Lopez-Cozar Gil AI, Ignacio-Garcia JM, de Ramon-Garrido E. Benefits at 3 yrs of an asthma education programme coupled with regular reinforcement. *Eur Respir J* 2002;20(5):1095–1101.
- Ilowite J, Webb R, Friedman B, Kerwin E, Bird SR, Hustad CM, Edelman JM. Addition of montelukast or salmeterol to fluticasone for protection against asthma attacks: a randomized, double-blind, multicenter study. *Ann Allergy Asthma Immunol* 2004;92(6):641–648.
- Imai C, Yamazaki H, Tanaka Y, Matsunaga M, Numata O, Torigoe K. Ratio of eosinophil cationic protein/eosinophil count as a new marker in children with acute asthma. *Pediatr Int* 1999;41(2):142–146.
- Imai T, Takase M, Takeda S, Kougo T. Serum KL-6 levels in pediatric patients: reference values for children and levels in pneumonia, asthma, and measles patients. *Pediatr Pulmonol* 2002;33(2):135–141.
- in't Veen JC, Smits HH, Hiemstra PS, Zwinderman AE, Sterk PJ, Bel EH. Lung function and sputum characteristics of patients with severe asthma during an induced exacerbation by double-blind steroid withdrawal. *Am J Respir Crit Care Med* 1999;160(1):93–99.
- in't Veen JC, Beekman AJ, Bel EH, Sterk PJ. Recurrent exacerbations in severe asthma are associated with enhanced airway closure during stable episodes. *Am J Respir Crit Care Med* 2000;161(6):1902–1906.
- Incalzi RA, Bellia V, Catalano F, Scichilone N, Imperiale C, Maggi S, Rengo F. Evaluation of health outcomes in elderly patients with asthma and COPD using disease-specific and generic instruments: the Salute Respiratoria nell'Anziano (Sa.R.A.) Study. *Chest* 2001;120(3):734–742.

Ind PW, Villasante C, Shiner RJ, Pietinalho A, Boszormenyi NG, Soliman S, Selroos O. Safety of formoterol by Turbuhaler as reliever medication compared with terbutaline in moderate asthma. *Eur Respir J* 2002;20(4):859–866.

Ind PW, Dal Negro R, Colman NC, Fletcher CP, Browning D, James MH. Addition of salmeterol to fluticasone propionate treatment in moderate-to-severe asthma. *Respir Med* 2003;97(5):555–562.

Ind PW, Haughney J, Price D, Rosen JP, Kennelly J. Adjustable and fixed dosing with budesonide/ formoterol via a single inhaler in asthma patients: the ASSURE study. *Respir Med* 2004;98(5):464–475.

Infante-Rivard C, Gautrin D, Malo JL, Suissa S. Maternal smoking and childhood asthma. *Am J Epidemiol* 1999;150(5):528–531.

Inman MD, Watson RM, Rerecich T, Gauvreau GM, Lutsky BN, Stryszak P, O'Byrne PM. Dose-dependent effects of inhaled mometasone furoate on airway function and inflammation after allergen inhalation challenge. *Am J Respir Crit Care Med* 2001;164(4):569–574.

Innes NJ, Stocking JA, Daynes TJ, Harrison BD. Randomised pragmatic comparison of UK and US treatment of acute asthma presenting to hospital. *Thorax* 2002;57(12):1040–1044.

Inoue R, Fukao T, Kato Y, Teramoto T, Utsumi M, Kondo N. Time-course study of the levels of urinary leukotriene E4, serum thromboxane B2 and serum eosinophil cationic protein in spontaneous asthma attacks in five children. *J Investig Allergol Clin Immunol* 1999;9(6):361–366.

Ippoliti F, De Santis W, Volterrani A, Lenti L, Canitano N, Lucarelli S, Frediani T. Immunomodulation during sublingual therapy in allergic children. *Pediatr Allergy Immunol* 2003;14(3):216–221.

Iqbal SM, Ritson S, Buck H, Ellis S, Everard ML. Majority of children aged 3 years and above can reliably inhale through the Clickhaler. *Pediatr Pulmonol* 2003;36(1):63–68.

Irvine L, Crombie IK, Clark RA, Slane PW, Feyerabend C, Goodman KE, Cater JI. Advising parents of asthmatic children on passive smoking: randomised controlled trial. *BMJ* 1999;318(7196):1456–1459.

Ishizuka T, Yoshii A, Hisada T, Tsukagoshi H, Okayama Y, Iizuka K, Dobashi K, Nakazawa T, Mori M. Effects of fluticasone propionate on bone mineral density in patients with persistent bronchial asthma. *Intern Med* 2002;41(10):798–804.

Iskandar SB, Mathai MG, Byrd RP Jr, Roy TM. Myocardial injury during standard treatment of an adult with status asthmaticus. *J Asthma* 2004;41(3):337–342.

Israel E, Drazen JM, Liggett SB, Boushey HA, Cherniack RM, Chinchilli VM, Cooper DM, Fahy JV, Fish JE, Ford JG, et al. The effect of polymorphisms of the beta(2)-adrenergic receptor on the response to regular use of albuterol in asthma. *Am J Respir Crit Care Med* 2000;162(1):75–80.

Israel E, Banerjee TR, Fitzmaurice GM, Kotlov TV, LaHive K, LeBoff MS. Effects of inhaled glucocorticoids on bone density in premenopausal women. *N Engl J Med* 2001;345(13):941–947.

Israel E, Chervinsky PS, Friedman B, van Bavel J, Skalky CS, Ghannam AF, Bird SR, Edelman JM. Effects of montelukast and beclomethasone on airway function and asthma control. *J Allergy Clin Immunol* 2002;110(6):847–854.

Itazawa T, Adachi Y, Imamura H, Okabe Y, Yamamoto J, Onoue Y, Adachi YS, Miyawaki T, Murakami G. Increased lymphoid MxA expression in acute asthma exacerbation in children. *Allergy* 2001;56(9):895–898.

Ivey MA, Simeon DT, Monteil MA. Climatic variables are associated with seasonal acute asthma admissions to accident and emergency room facilities in Trinidad, West Indies. *Clin Exp Allergy* 2003;33(11):1526–1530.

Jaakkola JJ, Nafstad P, Magnus P. Environmental tobacco smoke, parental atopy, and childhood asthma. *Environ Health Perspect* 2001;109(6):579–582.

Jaakkola JJ, Piipari R, Jaakkola MS. Occupation and asthma: a population-based incident case-control study. *Am J Epidemiol* 2003;158(10):981–987.

Jaakkola JJ, Parise H, Kislitsin V, Lebedeva NI, Spengler JD. Asthma, wheezing, and allergies in Russian schoolchildren in relation to new surface materials in the home. *Am J Public Health* 2004;94(4):560–562.

Jaakkola MS, Nordman H, Piipari R, Uitti J, Laitinen J, Karjalainen A, Hahtola P, Jaakkola JJ. Indoor dampness and molds and development of adult-onset asthma: a population-based incident case-control study. *Environ Health Perspect* 2002;110(5):543–547.

Jaakkola MS, Laitinen S, Piipari R, Uitti J, Nordman H, Haapala AM, Jaakkola JJ. Immunoglobulin G antibodies against indoor dampness-related microbes and adult-onset asthma: a population-based incident case-control study. *Clin Exp Immunol* 2002;129(1):107–112.

Jaakkola MS, Piipari R, Jaakkola N, Jaakkola JJ. Environmental tobacco smoke and adult-onset asthma: a population-based incident case-control study. *Am J Public Health* 2003;93(12):2055–2060.

Jackevicius CA, Chapman KR. Inhaler education for hospital-based pharmacists: how much is required? *Can Respir J* 1999;6(3):237–244.

Jacobs JE, van de Lisdonk EH, Smeele I, Van Weel C, Grol RP. Management of patients with asthma and COPD: monitoring quality of life and the relationship to subsequent GP interventions. *Fam Pract* 2001;18(6):574–580.

Jacobsen L. Preventive aspects of immunotherapy: prevention for children at risk of developing asthma. *Ann Allergy Asthma Immunol* 2001;87(1 Suppl 1):43–46.

Jacobson GA, Chong FV, Wood-Baker R. (R,S)-salbutamol plasma concentrations in severe asthma. *J Clin Pharm Ther* 2003;28(3):235–238.

Jacoby DB. Virus-induced asthma attacks. *JAMA* 2002;287(6):755–761.

Jain S, Hanania NA, Guntupalli KK. Ventilation of patients with asthma and obstructive lung disease. *Crit Care Clin* 1998;14(4):685–705.

Jaing JT, Sepulveda JA, Casillas AM. Novel computer-based assessment of asthma strategies in inner-city children. *Ann Allergy Asthma Immunol* 2001;87(3):230–237.

Jalaludin B, Chey T, Holmwood M, Chipps J, Hanson R, Corbett S, Leeder S. Admission rates as an indicator of the prevalence of severe asthma in the community. *Aust N Z J Public Health* 1998;22(2):214–219.

Jalaludin BB, Chey T, O'Toole BI, Smith WT, Capon AG, Leeder SR. Acute effects of low levels of ambient ozone on peak expiratory flow rate in a cohort of Australian children. *Int J Epidemiol* 2000;29(3):549–557.

Jalaludin BB, O'Toole BI, Leeder SR. Acute effects of urban ambient air pollution on respiratory symptoms, asthma medication use, and doctor visits for asthma in a cohort of Australian children. *Environ Res* 2004;95(1):32–42.

Jang AS, Choi IS, Park CS. Immunohistochemically stained activated eosinophils in sputum in patients with asthma. *Respiration* 2000;67(2):183–188.

Jang AS, Choi IS. Relationship between the perception of dyspnoea and airway inflammatory markers. *Respir Med* 2002;96(3):150–154.

Jang AS, Choi IS, Jeong TK, Lee KY. The effect of cigarette smoking on the levels of nitric oxide metabolites in the sputum of patients with acute asthma. *J Asthma* 2002;39(3):211–216.

Jang AS, Choi IS, Lee S, Nam HS, Kweon SS, Son MH, Lee JH, Park SW, Kim DJ, Uh ST, et al. The effect of passive smoking on asthma symptoms, atopy, and airway hyperresponsiveness in schoolchildren. *J Korean Med Sci* 2004;19(2):214–217.

Jans MP, Schellevis FG, Van Hensbergen W, Dukkers vE, van Eijk JT. Management of asthma and COPD patients: feasibility of the application of guidelines in general practice. *Int J Qual Health Care* 1998;10(1):27–34.

Jans MP, Schellevis FG, Le Coq EM, Bezemer PD, van Eijk JT. Health outcomes of asthma and COPD patients: the evaluation of a project to implement guidelines in general practice. *Int J Qual Health Care* 2001;13(1):17–25.

Janson C, Chinn S, Jarvis D, Zock JP, Toren K, Burney P. Effect of passive smoking on respiratory symptoms, bronchial responsiveness, lung function, and total serum IgE in the European Community Respiratory Health Survey: a cross-sectional study. *Lancet* 2001;358(9299):2103–2109.

Janson S, Becker G. Reasons for delay in seeking treatment for acute asthma: the patient's perspective. *J Asthma* 1998;35(5):427–435.

Janson S, Hardie G, Fahy J, Boushey H. Use of biological markers of airway inflammation to detect the efficacy of nurse-delivered asthma education. *Heart Lung* 2001;30(1):39–46.

Janson SL, Fahy JV, Covington JK, Paul SM, Gold WM, Boushey HA. Effects of individual self-management education on clinical, biological, and adherence outcomes in asthma. *Am J Med* 2003;115(8):620–626.

Janssen R, Weda M, Ekkelenkamp MB, Lammers JW, Zanen P. Metal versus plastic spacers: an in vitro and in vivo comparison. *Int J Pharm* 2002;245(1–2):93–98.

Jarvis D, Chinn S, Potts J, Burney P. Association of body mass index with respiratory symptoms and atopy: results from the European Community Respiratory Health Survey. *Clin Exp Allergy* 2002;32(6):831–837.

Jarvis J, Seed MJ, Elton R, Sawyer L, Agius R. Relationship between chemical structure and the occupational asthma hazard of low molecular weight organic compounds. *Occup Environ Med* 2005;62(4):243–250.

Jatakanon A, Lim S, Chung KF, Barnes PJ. An inhaled steroid improves markers of airway inflammation in patients with mild asthma. *Eur Respir J* 1998;12(5):1084–1088.

Jatakanon A, Lim S, Barnes PJ. Changes in sputum eosinophils predict loss of asthma control. *Am J Respir Crit Care Med* 2000;161(1):64–72.

Jayaram L, Pizzichini E, Lemiere C, Man SF, Cartier A, Hargreave FE, Pizzichini MM. Steroid naive eosinophilic asthma: anti-inflammatory effects of fluticasone and montelukast. *Thorax* 2005;60(2):100–105.

Jayaram L, Duong M, Pizzichini MM, Pizzichini E, Kamada D, Efthimiadis A, Hargreave FE. Failure of montelukast to reduce sputum eosinophilia in high-dose corticosteroid-dependent asthma. *Eur Respir J* 2005;25(1):41–46.

Jedrychowski W, Maugeri U, Falk E, Bianchi I. Reversibility of asthma-like symptoms and lung function growth over two-year follow-up in preadolescent children. *Med Sci Monit* 2001;7(2):293–298.

Jedrychowski W, Maugeri U, Bianchi I, Flak E. Transient or persistent asthma-like symptoms and lung growth over 2-year follow-up in pre-adolescent children. *J Epidemiol Biostat* 2001;6(2):229–233.

Jeffery PK, Venge P, Gazycki MJ, Egerod I, Dahl R, Faurschou P. Effects of salmeterol on mucosal inflammation in asthma: a placebo-controlled study. *Eur Respir J* 2002;20(6):1378–1385.

Jenkins C, Woolcock AJ, Saarelainen P, Lundback B, James MH. Salmeterol/fluticasone propionate combination therapy 50/250 microg twice daily is more effective than budesonide 800 microg twice daily in treating moderate to severe asthma. *Respir Med* 2000;94(7):715–723.

Jenkins C, Costello J, Hodge L. Systematic review of prevalence of aspirin induced asthma and its implications for clinical practice. *BMJ* 2004;328(7437):434.

Jenkins HA, Cherniack R, Szeffler SJ, Covar R, Gelfand EW, Spahn JD. A comparison of the clinical characteristics of children and adults with severe asthma. *Chest* 2003;124(4):1318–1324.

Jenkins HS, Devalia JL, Mister RL, Bevan AM, Rusznak C, Davies RJ. The effect of exposure to ozone and nitrogen dioxide on the airway response of atopic asthmatics to inhaled allergen: dose- and time-dependent effects. *Am J Respir Crit Care Med* 1999;160(1):33–39.

Jensen SP, Lynch DA, Brown KK, Wenzel SE, Newell JD. High-resolution CT features of severe asthma and bronchiolitis obliterans. *Clin Radiol* 2002;57(12):1078–1085.

Jeong HJ, Kim BS, Oh JG, Kim KS, Kim HM. Regulatory effect of cytokine production in asthma patients by SOOJI CHIM (Koryo Hand Acupuncture Therapy). *Immunopharmacol Immunotoxicol* 2002;24(2):265–274.

Jessop DC, Rutter DR, Sharma D, Albery IP. Emotion and adherence to treatment in people with asthma: an application of the emotional stroop paradigm. *Br J Psychol* 2004;95(Pt 2):127–147.

Jick SS, Vasilakis-Scaramozza C, Maier WC. The risk of cataract among users of inhaled steroids. *Epidemiology* 2001;12(2):229–234.

Jin R, Choi BC, Chan BT, McRae L, Li F, Cicutt L, Boulet LP, Mitchell I, Beveridge R, Leith E. Physician asthma management practices in Canada. *Can Respir J* 2000;7(6):456–465.

Jindal SK, Jha LK, Gupta D. Bronchial hyper-responsiveness of women with asthma exposed to environmental tobacco smoke. *Indian J Chest Dis Allied Sci* 1999;41(2):75–82.

John AE, Berlin AA, Lukacs NW. Respiratory syncytial virus-induced CCL5/RANTES contributes to exacerbation of allergic airway inflammation. *Eur J Immunol* 2003;33(6):1677–1685.

Johnson AR, Dimich-Ward HD, Manfreda J, Becklake MR, Ernst P, Sears MR, Bowie DM, Sweet L, Chan-Yeung M. Occupational asthma in adults in six Canadian communities. *Am J Respir Crit Care Med* 2000;162(6):2058–2062.

Johnson KB, Blaisdell CJ, Walker A, Eggleston P. Effectiveness of a clinical pathway for inpatient asthma management. *Pediatrics* 2000;106(5):1006–1012.

Johnson RL, Roter D, Powe NR, Cooper LA. Patient race/ethnicity and quality of patient-physician communication during medical visits. *Am J Public Health* 2004;94(12):2084–2090.

Johnston NW, Johnston SL, Duncan JM, Greene JM, Kebadze T, Keith PK, Roy M, Waserman S, Sears MR. The September epidemic of asthma exacerbations in children: a search for etiology. *J Allergy Clin Immunol* 2005;115(1):132–138.

Johnston SL. Influence of viral and bacterial respiratory infections on exacerbations and symptom severity in childhood asthma. *Pediatr Pulmonol Suppl* 1997;16:88–89.

Johnston SL, Ferrero F, Garcia ML, Dutkowska R. Oral oseltamivir improves pulmonary function and reduces exacerbation frequency for influenza-infected children with asthma. *Pediatr Infect Dis J* 2005;24(3):225–232.

Jonasson G, Carlsen KH, Jonasson C, Mowinckel P. Low-dose inhaled budesonide once or twice daily for 27 months in children with mild asthma. *Allergy* 2000;55(8):740–748.

Jones A, Rowe B, Peters J, Camargo C, Hammarquist C. Inhaled beta-agonists for asthma in mechanically ventilated patients. *Cochrane Database Syst Rev* 2000;(2):CD001493.

Jones A, Rowe B, Peters J, Camargo C, Hammarquist C, Rowe B. Inhaled beta-agonists for asthma in mechanically ventilated patients. *Cochrane Database Syst Rev* 2001;(4):CD001493.

Jones AM, Munavvar M, Vail A, Aldridge RE, Hopkinson L, Rayner C, O'Driscoll BR. Prospective, placebo-controlled trial of 5 vs 10 days of oral prednisolone in acute adult asthma. *Respir Med* 2002;96(11):950–954.

Jones CA, Morphew T, Clement LT, Kimia T, Dyer M, Li M, Hanley-Lopez J. A school-based case identification process for identifying inner city children with asthma: the Breathmobile program. *Chest* 2004;125(3):924–934.

Jones CA, Clement LT, Hanley-Lopez J, Morphew T, Kwong KY, Lifson F, Opas L, Guterman JJ. The Breathmobile Program: structure, implementation, and evolution of a large-scale, urban, pediatric asthma disease management program. *Dis Manag* 2005;8(4):205–222.

Jones EM, Portnoy JM. Modification of provider behavior to achieve improved asthma outcomes. *Curr Allergy Asthma Rep* 2003;3(6):484–490.

Jones G, Ponsonby AL, Smith BJ, Carmichael A. Asthma, inhaled corticosteroid use, and bone mass in prepubertal children. *J Asthma* 2000;37(7):603–611.

Jones JA, Wahlgren DR, Meltzer SB, Meltzer EO, Clark NM, Hovell MF. Increasing asthma knowledge and changing home environments for Latino families with asthmatic children. *Patient Educ Couns* 2001;42(1):67–79.

Jones JS, Holstege CP, Riekse R, White L, Bergquist T. Metered-dose inhalers: do emergency health care providers know what to teach? *Ann Emerg Med* 1995;26(3):308–311.

Jones K, Cleary R, Hyland M. Associations between an asthma morbidity index and ideas of fright and bother in a community population. *Respir Med* 1999;93(7):515–519.

Jones PW. Interpreting thresholds for a clinically significant change in health status in asthma and COPD. *Eur Respir J* 2002;19(3):398–404.

Jones SL, Kittelson J, Cowan JO, Flannery EM, Hancox RJ, McLachlan CR, Taylor DR. The predictive value of exhaled nitric oxide measurements in assessing changes in asthma control. *Am J Respir Crit Care Med* 2001;164(5):738–743.

Jones SL, Cowan JO, Flannery EM, Hancox RJ, Herbison GP, Taylor DR. Reversing acute bronchoconstriction in asthma: the effect of bronchodilator tolerance after treatment with formoterol. *Eur Respir J* 2001;17(3):368–373.

Jones SM, Burks AW, Spencer HJ, Lensing S, Roberson PK, Gandy J, Helm RM. Occupational asthma symptoms and respiratory function among aerial pesticide applicators. *Am J Ind Med* 2003;43(4):407–417.

Jonsson B, Berggren F, Svensson K, O'Byrne PM. An economic evaluation of combination treatment with budesonide and formoterol in patients with mild-to-moderate persistent asthma. *Respir Med* 2004;98(11):1146–1154.

Joo JH, Lim GI, Seo MJ, Park SJ, Lee JH, Uh ST, Kim YH, Park CS. Perception of wheezing in the elderly asthmatics. *Korean J Intern Med* 2001;16(4):260–264.

Joos S, Schott C, Zou H, Daniel V, Martin E. Immunomodulatory effects of acupuncture in the treatment of allergic asthma: a randomized controlled study. *J Altern Complement Med* 2000;6(6):519–525.

Jorgensen IM, Bulow S, Jensen VB, Dahm TL, Prahl P, Juel K. Asthma mortality in Danish children and young adults, 1973–1994: epidemiology and validity of death certificates. *Eur Respir J* 2000;15(5):844–848.

Jorgensen IM, Jensen VB, Bulow S, Dahm TL, Prahl P, Juel K. Asthma mortality in the Danish child population: risk factors and causes of asthma death. *Pediatr Pulmonol* 2003;36(2):142–147.

Joseph-Bowen J, de Klerk NH, Firth MJ, Kendall GE, Holt PG, Sly PD. Lung function, bronchial responsiveness, and asthma in a community cohort of 6-year-old children. *Am J Respir Crit Care Med* 2004;169(7):850–854.

Joseph CL, Havstad S, Anderson EW, Brown R, Johnson CC, Clark NM. Effect of asthma intervention on children with undiagnosed asthma. *J Pediatr* 2005;146(1):96–104.

Joseph KE, Adams CD, Cottrell L, Hogan MB, Wilson NW. Providing dust mite-proof covers improves adherence to dust mite control measures in children with mite allergy and asthma. *Ann Allergy Asthma Immunol* 2003;90(5):550–553.

Jowers JR, Schwartz AL, Tinkelman DG, Reed KE, Corsello PR, Mazzei AA, Bender DR, Lochhead RA. Disease management program improves asthma outcomes. *Am J Manag Care* 2000;6(5):585–592.

Joyce DP, Chapman KR, Balter M, Kesten S. Asthma and allergy avoidance knowledge and behavior in postpartum women. *Ann Allergy Asthma Immunol* 1997;79(1):35–42.

Juhn YJ, Sauver JS, Shapiro ED, McCarthy PL. Child care program directors' level of knowledge about asthma and factors associated with knowledge. *Clin Pediatr (Phila)* 2002;41(2):111–116.

Juncal S, Vazquez MI, Seoane G, Blanco-Aparicio M, Verea H. Applicability of the Asthma Opinion Survey in the Spanish population: distribution and relationship with sociodemographic and clinical variables. *J Asthma* 2000;37(6):469–479.

Juniper EF, O'Byrne PM, Ferrie PJ, King DR, Roberts JN. Measuring asthma control. Clinic questionnaire or daily diary? *Am J Respir Crit Care Med* 2000;162(4 Pt 1):1330–1334.

Juniper EF, O'Byrne PM, Roberts JN. Measuring asthma control in group studies: do we need airway calibre and rescue beta<sub>2</sub>-agonist use? *Respir Med* 2001;95(5):319–323.

Juniper EF, Price DB, Stampone PA, Creemers JP, Mol SJ, Fireman P. Clinically important improvements in asthma-specific quality of life, but no difference in conventional clinical indexes in patients changed from conventional beclomethasone dipropionate to approximately half the dose of extrafine beclomethasone dipropionate. *Chest* 2002;121(6):1824–1832.

Juniper EF, Jenkins C, Price MJ, James MH. Impact of inhaled salmeterol/fluticasone propionate combination product versus budesonide on the health-related quality of life of patients with asthma. *Am J Respir Med* 2002;1(6):435–440.

Juniper EF, Wisniewski ME, Cox FM, Emmett AH, Nielsen KE, O'Byrne PM. Relationship between quality of life and clinical status in asthma: a factor analysis. *Eur Respir J* 2004;23(2):287–291.

Juniper EF, Svensson K, Mork AC, Stahl E. Measuring health-related quality of life in adults during an acute asthma exacerbation. *Chest* 2004;125(1):93–97.

Juniper EF, Svensson K, Mork AC, Stahl E. Measurement properties and interpretation of three shortened versions of the asthma control questionnaire. *Respir Med* 2005;99(5):553–558.

Just J, Segala C, Sahraoui F, Priol G, Grimaldi A, Neukirch F. Short-term health effects of particulate and photochemical air pollution in asthmatic children. *Eur Respir J* 2002;20(4):899–906.

Kabesch M, Hoefer C, Carr D, Leupold W, Weiland SK, von Mutius E. Glutathione S transferase deficiency and passive smoking increase childhood asthma. *Thorax* 2004;59(7):569–573.

Kajosaari M, Syvanen P, Forars M, Juntunen-Backman K. Inhaled corticosteroids during and after respiratory syncytial virus-bronchiolitis may decrease subsequent asthma. *Pediatr Allergy Immunol* 2000;11(3):198–202.

Kakish KS. Serum magnesium levels in asthmatic children during and between exacerbations. *Arch Pediatr Adolesc Med* 2001;155(2):181–183.

Kalayci O, Saracclar Y, Kilinc K, Sekerel BE. Serum levels of eosinophilic cationic protein (ECP), myeloperoxidase (MPO), lipid peroxidation products, interleukin (IL)-5 and interferon (IFN)-gamma in children with bronchial asthma at acute asthma attack and remission. *Turk J Pediatr* 2000;42(1):9–16.

Kalayci O, Sonna LA, Woodruff PG, Camargo CA Jr, Luster AD, Lilly CM. Monocyte chemotactic protein-4 (MCP-4; CCL-13): a biomarker of asthma. *J Asthma* 2004;41(1):27–33.

Kallenbach A, Ludwig-Beymer P, Welsh C, Norris J, Giloth B. Process improvement for asthma. An integrated approach. *J Nurs Care Qual* 2003;18(4):245–256.

Kalliomaki M, Salminen S, Arvilommi H, Kero P, Koskinen P, Isolauri E. Probiotics in primary prevention of atopic disease: a randomised placebo-controlled trial. *Lancet* 2001;357(9262):1076–1079.

Kamei T, Fujita J, Okada H, Nakamura H, Kishimoto T, Momoi A, Kawaji K, Yoshinouchi T, Ueda N, Takahara J. Comparison between fenoterol and fenoterol plus oxitropium bromide delivered by metered-dose inhaler with InspireEase to relieve acute asthma attack. *J Asthma* 1999;36(1):67–75.

Kamps AW, van Ewijk B, Roorda RJ, Brand PL. Poor inhalation technique, even after inhalation instructions, in children with asthma. *Pediatr Pulmonol* 2000;29(1):39–42.

Kamps AW, Roorda RJ, Brand PL. Peak flow diaries in childhood asthma are unreliable. *Thorax* 2001;56(3):180–182.

Kamps AW, Brand PL, Roorda RJ. Determinants of correct inhalation technique in children attending a hospital-based asthma clinic. *Acta Paediatr* 2002;91(2):159–163.

Kamps AW, Brand PL, Vermeir K, Roorda RJ. Bronchodilator response in asthmatic children is significantly reduced when measured immediately after methacholine challenge. *J Asthma* 2002;39(8):737–741.

Kamps AW, Brand PL, Kimpen JL, Maille AR, Overgoor-van de Groes AW, Helsdingen-Peek LC, Roorda RJ. Outpatient management of childhood asthma by paediatrician or asthma nurse: randomised controlled study with one year follow up. *Thorax* 2003;58(11):968–973.

Kamps AW, Roorda RJ, Kimpen JL, Overgoor-van de Groes AW, Helsdingen-Peek LC, Brand PL. Impact of nurse-led outpatient management of children with asthma on healthcare resource utilisation and costs. *Eur Respir J* 2004;23(2):304–309.

Kanazawa H, Hirata K, Yoshikawa J. Role of endogenous nitric oxide in exercise-induced airway narrowing in patients with bronchial asthma. *J Allergy Clin Immunol* 2000;106(6):1081–1087.

Kanazawa H, Shiraishi S, Hirata K, Yoshikawa J. Decreased peroxynitrite inhibitory activity in induced sputum in patients with bronchial asthma. *Thorax* 2002;57(6):509–512.

Kanazawa H, Asai K, Hirata K, Yoshikawa J. Vascular involvement in exercise-induced airway narrowing in patients with bronchial asthma. *Chest* 2002;122(1):166–170.

Kanazawa H, Hirata K, Yoshikawa J. Involvement of vascular endothelial growth factor in exercise induced bronchoconstriction in asthmatic patients. *Thorax* 2002;57(10):885–888.

Kanazawa H, Nomura S, Hirata K, Yoshikawa J. Effect of inhaled beclomethasone dipropionate on peroxynitrite inhibitory activity in induced sputum from asthmatic patients. *Chest* 2003;124(5):1755–1761.

Kanda N, Yasuba H, Takahashi T, Mizuhara Y, Yamazaki S, Imada Y, Izumi Y, Kobayashi Y, Yamashita K, Kita H, et al. Prevalence of esophageal candidiasis among patients treated with inhaled fluticasone propionate. *Am J Gastroenterol* 2003;98(10):2146–2148.

Kanesalingam R, Lu YS, Ong JJ, Wong SS, Vijayasingham P, Thayaparan T, Loh LC. A study of admission criteria and early management of adult patients with acute asthma. *Med J Malaysia* 2003;58(4):587–593.

Kannan S, Milligan KR. Moderately severe anaphylactoid reaction to pentastarch (200/0.5) in a patient with acute severe asthma. *Intensive Care Med* 1999;25(2):220–222.

Kanniess F, Richter K, Bohme S, Jorres RA, Magnussen H. Montelukast versus fluticasone: effects on lung function, airway responsiveness and inflammation in moderate asthma. *Eur Respir J* 2002;20(4):853–858.

Kanniess F, Richter K, Janicki S, Schleiss MB, Jorres RA, Magnussen H. Dose reduction of inhaled corticosteroids under concomitant medication with montelukast in patients with asthma. *Eur Respir J* 2002;20(5):1080–1087.

Kannisto S, Korppi M, Remes K, Voutilainen R. Adrenal suppression, evaluated by a low dose adrenocorticotropin test, and growth in asthmatic children treated with inhaled steroids. *J Clin Endocrinol Metab* 2000;85(2):652–657.

Kannisto S, Vanninen E, Korppi M. Evaluation of the interrupter technique in measuring post-exercise bronchodilator responses in children. *Clin Physiol* 2000;20(1):62–68.

Kannisto S, Voutilainen R, Remes K, Korppi M. Efficacy and safety of inhaled steroid and cromone treatment in school-age children: a randomized pragmatic pilot study. *Pediatr Allergy Immunol* 2002;13(1):24–30.

Kannisto S, Laatikainen A, Taivainen A, Savolainen K, Tukiainen H, Voutilainen R. Serum dehydroepiandrosterone sulfate concentration as an indicator of adrenocortical suppression during inhaled steroid therapy in adult asthmatic patients. *Eur J Endocrinol* 2004;150(5):687–690.

Kanter LJ, Siegel CJ, Snyder CF, Pelletier EM, Buchner DA, Goss TF. Impact of respiratory symptoms on health-related quality of life and medical resource utilization of patients treated by allergy specialists and primary care providers. *Ann Allergy Asthma Immunol* 2002;89(2):139–147.

Kao CC, See LC, Yan DC, Ou LS, Huang JL. Time trends and seasonal variations in hospital admissions for childhood asthma in Taiwan from 1990 to 1998. *Asian Pac J Allergy Immunol* 2001;19(2):63–68.

Kapoor U, Tayal G, Mittal SK, Sharma VK, Tekur U. Plasma cortisol levels in acute asthma. *Indian J Pediatr* 2003;70(12):965–968.

Karaman O, Sunneli L, Uzuner N, Islekeli H, Turgut CS, Kose S, Tezcan D, Coker C, Erbayraktar Z. Evaluation of montelukast in 8- to 14-year-old children with mild persistent asthma and compared with inhaled corticosteroids. *Allergol Immunopathol (Madr)* 2004;32(1):21–27.

Karpel JP, Aldrich TK, Prezant DJ, Guguchev K, Gaitan-Salas A, Pathiparti R. Emergency treatment of acute asthma with albuterol metered-dose inhaler plus holding chamber: how often should treatments be administered? *Chest* 1997;112(2):348–356.

Karpel JP, Busse WW, Noonan MJ, Monahan ME, Lutsky B, Staudinger H. Effects of mometasone furoate given once daily in the evening on lung function and symptom control in persistent asthma. *Ann Pharmacother* 2005;39(12):1977–1983.

- Karras DJ, Sammon ME, Terregino CA, Lopez BL, Griswold SK, Arnold GK. Clinically meaningful changes in quantitative measures of asthma severity. *Acad Emerg Med* 2000;7(4):327–334.
- Kasayama S, Fujita M, Goya K, Yamamoto H, Fujita K, Morimoto Y, Kawase I, Miyatake A. Effects of alendronate on bone mineral density and bone metabolic markers in postmenopausal asthmatic women treated with inhaled corticosteroids. *Metabolism* 2005;54(1):85–90.
- Kashiwabara K, Nakamura H. Analgesic-induced asthma caused by 2.0% ketoprofen adhesive agents, but not by 0.3% agents. *Intern Med* 2001;40(2):124–126.
- Kashiwabara K, Kohrogi H, Ota K, Moroi T. High frequency of emergency room visits of asthmatic children on misty or foggy nights. *J Asthma* 2002;39(8):711–717.
- Kasper L, Sladek K, Dupлага M, Bochenek G, Liebhart J, Gladysz U, Malolepszy J, Szczeklik A. Prevalence of asthma with aspirin hypersensitivity in the adult population of Poland. *Allergy* 2003;58(10):1064–1066.
- Kass JE, Terregino CA. The effect of heliox in acute severe asthma: a randomized controlled trial. *Chest* 1999;116(2):296–300.
- Kaszuba SM, Baroody FM, deTineo M, Haney L, Blair C, Naclerio RM. Superiority of an intranasal corticosteroid compared with an oral antihistamine in the as-needed treatment of seasonal allergic rhinitis. *Arch Intern Med* 2001;161(21):2581–2587.
- Katial RK, Stelzle RC, Bonner MW, Marino M, Cantilena LR, Smith LJ. A drug interaction between zafirlukast and theophylline. *Arch Intern Med* 1998;158(15):1713–1715.
- Katon WJ, Richardson L, Lozano P, McCauley E. The relationship of asthma and anxiety disorders. *Psychosom Med* 2004;66(3):349–355.
- Katsoulis K, Kontakiotis T, Leonardopoulos I, Kotsovili A, Legakis IN, Patakas D. Serum total antioxidant status in severe exacerbation of asthma: correlation with the severity of the disease. *J Asthma* 2003;40(8):847–854.
- Kattan M, Mitchell H, Eggleston P, Gergen P, Crain E, Redline S, Weiss K, Evans R III, Kaslow R, Kercsmar C, et al. Characteristics of inner-city children with asthma: the National Cooperative Inner-City Asthma Study. *Pediatr Pulmonol* 1997;24(4):253–262.
- Katz PP, Yelin EH, Eisner MD, Blanc PD. Perceived control of asthma and quality of life among adults with asthma. *Ann Allergy Asthma Immunol* 2002;89(3):251–258.
- Katz PP, Yelin EH, Eisner MD, Earnest G, Blanc PD. Performance of valued life activities reflected asthma-specific quality of life more than general physical function. *J Clin Epidemiol* 2004;57(3):259–267.
- Kauffmann F, Oryszczyn MP, Maccario J. The protective role of country living on skin prick tests, immunoglobulin E and asthma in adults from the Epidemiological Study on the Genetics and Environment of Asthma, bronchial hyper-responsiveness and atopy. *Clin Exp Allergy* 2002;32(3):379–386.

Kauppinen R, Sintonen H, Tukiainen H. One-year economic evaluation of intensive vs conventional patient education and supervision for self-management of new asthmatic patients. *Respir Med* 1998;92(2):300–307.

Kauppinen R, Sintonen H, Vilkka V, Tukiainen H. Long-term (3-year) economic evaluation of intensive patient education for self-management during the first year in new asthmatics. *Respir Med* 1999;93(4):283–289.

Kayani S, Shannon DC. Adverse behavioral effects of treatment for acute exacerbation of asthma in children: a comparison of two doses of oral steroids. *Chest* 2002;122(2):624–628.

Keahey L, Bulloch B, Becker AB, Pollack CV Jr, Clark S, Camargo CA Jr. Initial oxygen saturation as a predictor of admission in children presenting to the emergency department with acute asthma. *Ann Emerg Med* 2002;40(3):300–307.

Kearney SE, Graham DR, Atherton ST. Acute severe asthma treated by mechanical ventilation: a comparison of the changing characteristics over a 17 yr period. *Respir Med* 1998;92(5):716–721.

Kee F, Jenkins J, McIlwaine S, Patterson C, Harper S, Shields M. Fast and frugal models of clinical judgment in novice and expert physicians. *Med Decis Making* 2003;23(4):293–300.

Keenan SP, Brake D. An evidence-based approach to noninvasive ventilation in acute respiratory failure. *Crit Care Clin* 1998;14(3):359–372.

Kelley CF, Mannino DM, Homa DM, Savage-Brown A, Holguin F. Asthma phenotypes, risk factors, and measures of severity in a national sample of US children. *Pediatrics* 2005;115(3):726–731.

Kelly AM, Powell C, Kerr D. Patients with a longer duration of symptoms of acute asthma are more likely to require admission to hospital. *Emerg Med (Fremantle)* 2002;14(2):142–145.

Kelly AM, Kyle E, McAlpine R. Venous pCO<sub>2</sub> and pH can be used to screen for significant hypercarbia in emergency patients with acute respiratory disease. *J Emerg Med* 2002;22(1):15–19.

Kelly AM, Powell C, Kerr D. Snapshot of acute asthma: treatment and outcome of patients with acute asthma treated in Australian emergency departments. *Intern Med J* 2003;33(9–10):406–413.

Kelly AM, Kerr D, Powell C. Is severity assessment after one hour of treatment better for predicting the need for admission in acute asthma? *Respir Med* 2004;98(8):777–781.

Kelly CS, Shield SW, Gowen MA, Jaganjac N, Andersen CL, Strope GL. Outcomes analysis of a summer asthma camp. *J Asthma* 1998;35(2):165–171.

Kelly CS, Andersen CL, Pestian JP, Wenger AD, Finch AB, Strope GL, Luckstead EF. Improved outcomes for hospitalized asthmatic children using a clinical pathway. *Ann Allergy Asthma Immunol* 2000;84(5):509–516.

Kelly CS, Morrow AL, Shults J, Nakas N, Strope GL, Adelman RD. Outcomes evaluation of a comprehensive intervention program for asthmatic children enrolled in medicaid. *Pediatrics* 2000;105(5):1029–1035.

Kelso TM, Self TH, Rumbak MJ, Stephens MA, Garrett W, Arheart KL. Educational and long-term therapeutic intervention in the ED: effect on outcomes in adult indigent minority asthmatics. *Am J Emerg Med* 1995;13(6):632–637.

Kelso TM, Abou-Shala N, Heilker GM, Arheart KL, Portner TS, Self TH. Comprehensive long-term management program for asthma: effect on outcomes in adult African-Americans. *Am J Med Sci* 1996;311(6):272–280.

Kemp JP, Dockhorn RJ, Shapiro GG, Nguyen HH, Reiss TF, Seidenberg BC, Knorr B. Montelukast once daily inhibits exercise-induced bronchoconstriction in 6- to 14-year-old children with asthma. *J Pediatr* 1998;133(3):424–428.

Kemp JP, Korenblat PE, Scherger JE, Minkwitz M. Zafirlukast in clinical practice: results of the Accolate Clinical Experience and Pharmacoepidemiology Trial (ACCEPT) in patients with asthma. *J Fam Pract* 1999;48(6):425–432.

Kemp JP, Minkwitz MC, Bonuccelli CM, Warren MS. Therapeutic effect of zafirlukast as monotherapy in steroid-naïve patients with severe persistent asthma. *Chest* 1999;115(2):336–342.

Kemp JP, Berkowitz RB, Miller SD, Murray JJ, Nolop K, Harrison JE. Mometasone furoate administered once daily is as effective as twice-daily administration for treatment of mild-to-moderate persistent asthma. *J Allergy Clin Immunol* 2000;106(3):485–492.

Kemp JP, Osur S, Shrewsbury SB, Herje NE, Duke SP, Harding SM, Faulkner K, Crim CC. Potential effects of fluticasone propionate on bone mineral density in patients with asthma: a 2-year randomized, double-blind, placebo-controlled trial. *Mayo Clin Proc* 2004;79(4):458–466.

Kempe A, Beaty B, Englund BP, Roark RJ, Hester N, Steiner JF. Quality of care and use of the medical home in a state-funded capitated primary care plan for low-income children. *Pediatrics* 2000;105(5):1020–1028.

Kendrick KR, Baxi SC, Smith RM. Usefulness of the modified 0–10 Borg scale in assessing the degree of dyspnea in patients with COPD and asthma. *J Emerg Nurs* 2000;26(3):216–222.

Kennedy S, Stone A, Rachelefsky G. Factors associated with emergency department use in asthma: acute care interventions improving chronic disease outcomes. *Ann Allergy Asthma Immunol* 2003;90(1):45–50.

Kennedy WA, Laurier C, Gautrin D, Ghezzo H, Pare M, Malo JL, Contandriopoulos AP. Occurrence and risk factors of oral candidiasis treated with oral antifungals in seniors using inhaled steroids. *J Clin Epidemiol* 2000;53(7):696–701.

Keogh KA, Macarthur C, Parkin PC, Stephens D, Arseneault R, Tennis O, Bacal L, Schuh S. Predictors of hospitalization in children with acute asthma. *J Pediatr* 2001;139(2):273–277.

- Keogh KA, Specks U. Churg-Strauss syndrome: clinical presentation, antineutrophil cytoplasmic antibodies, and leukotriene receptor antagonists. *Am J Med* 2003;115(4):284–290.
- Kercsmar CM. Acute inpatient care of status asthmaticus. *Respir Care Clin N Am* 2000;6(1):155–170.
- Kercsmar CM, Myers TR. Clinical pathways in treatment of asthma. *Curr Opin Allergy Clin Immunol* 2002;2(3):183–187.
- Kercsmar CM. Current trends in management of pediatric asthma. *Respir Care* 2003;48(3):194–205.
- Kerkhof M, De Monchy JG, Rijken B, Schouten JP. The effect of gas cooking on bronchial hyperresponsiveness and the role of immunoglobulin E. *Eur Respir J* 1999;14(4):839–844.
- Kern-Buell CL, McGrady AV, Conran PB, Nelson LA. Asthma severity, psychophysiological indicators of arousal, and immune function in asthma patients undergoing biofeedback-assisted relaxation. *Appl Psychophysiol Biofeedback* 2000;25(2):79–91.
- Ketai L, Coutsias C, Williamson S, Coutsias V. Thin-section CT evidence of bronchial thickening in children with stable asthma: bronchoconstriction or airway remodeling? *Acad Radiol* 2001;8(3):257–264.
- Khadadah ME, Onadeko BO, Mustafa HT, Metwali KE. Clinical features and outcome of management of severe acute asthma (status asthmaticus) in the intensive care unit of a tertiary medical center. *Singapore Med J* 2000;41(5):214–217.
- Khan LN, Kon OM, Macfarlane AJ, Meng Q, Ying S, Barnes NC, Kay AB. Attenuation of the allergen-induced late asthmatic reaction by cyclosporin A is associated with inhibition of bronchial eosinophils, interleukin-5, granulocyte macrophage colony-stimulating factor, and eotaxin. *Am J Respir Crit Care Med* 2000;162(4 Pt 1):1377–1382.
- Khan MS, O'Meara M, Stevermuer TL, Henry RL. Randomized controlled trial of asthma education after discharge from an emergency department. *J Paediatr Child Health* 2004;40(12):674–677.
- Khan SR, Henry RL, Hurst T. Outcome evaluation of early discharge from hospital with asthma. *Respirology* 2003;8(1):77–81.
- Kharitonov SA, Donnelly LE, Montuschi P, Corradi M, Collins JV, Barnes PJ. Dose-dependent onset and cessation of action of inhaled budesonide on exhaled nitric oxide and symptoms in mild asthma. *Thorax* 2002;57(10):889–896.
- Kharitonov SA, Gonio F, Kelly C, Meah S, Barnes PJ. Reproducibility of exhaled nitric oxide measurements in healthy and asthmatic adults and children. *Eur Respir J* 2003;21(3):433–438.
- Khayyal MT, el Ghazaly MA, el Khatib AS, Hatem AM, de Vries PJ, el Shafei S, Khattab MM. A clinical pharmacological study of the potential beneficial effects of a propolis food product as an adjuvant in asthmatic patients. *Fundam Clin Pharmacol* 2003;17(1):93–102.

Khoshoo V, Le T, Haydel RM Jr, Landry L, Nelson C. Role of gastroesophageal reflux in older children with persistent asthma. *Chest* 2003;123(4):1008–1013.

Kieckhefer GM, Ratcliffe M. What parents of children with asthma tell us. *J Pediatr Health Care* 2000;14(3):122–126.

Kilburn S, Lasserson TJ, McKean M. Pet allergen control measures for allergic asthma in children and adults. *Cochrane Database Syst Rev* 2003;(1):CD002989.

Kiljander T, Salomaa ER, Hietanen E, Helenius H, Liippo K, Terho EO. Asthma and gastro-oesophageal reflux: can the response to anti-reflux therapy be predicted? *Respir Med* 2001;95(5):387–392.

Kiljander TO, Salomaa ER, Hietanen EK, Terho EO. Gastroesophageal reflux in asthmatics: a double-blind, placebo-controlled crossover study with omeprazole. *Chest* 1999;116(5):1257–1264.

Kilpelainen M, Koskenvuo M, Helenius H, Terho E. Wood stove heating, asthma and allergies. *Respir Med* 2001;95(11):911–916.

Kim CK, Kim SW, Park CS, Kim BI, Kang H, Koh YY. Bronchoalveolar lavage cytokine profiles in acute asthma and acute bronchiolitis. *J Allergy Clin Immunol* 2003;112(1):64–71.

Kim CW, Kim JS, Park JW, Hong CS. Clinical applications of forced oscillation techniques (FOT) in patients with bronchial asthma. *Korean J Intern Med* 2001;16(2):80–86.

Kim IK, Phrampus E, Venkataraman S, Pitetti R, Saville A, Corcoran T, Gracely E, Funt N, Thompson A. Helium/oxygen-driven albuterol nebulization in the treatment of children with moderate to severe asthma exacerbations: a randomized, controlled trial. *Pediatrics* 2005;116(5):1127–1133.

Kim JH, Lee SY, Kim HB, Kim BS, Shim JY, Hong TJ, Hong SJ. Prolonged effect of montelukast in asthmatic children with exercise-induced bronchoconstriction. *Pediatr Pulmonol* 2005;39(2):162–166.

Kim JT, Kim CK, Koh YY. Serum levels of soluble interleukin-2 receptor at acute asthma exacerbation: relationship with severity of exacerbation and bronchodilator response. *Int Arch Allergy Immunol* 1998;117(4):263–269.

Kim KT, Ginchansky EJ, Friedman BF, Srebro S, Pepsin PJ, Edwards L, Stanford RH, Rickard K. Fluticasone propionate versus zafirlukast: effect in patients previously receiving inhaled corticosteroid therapy. *Ann Allergy Asthma Immunol* 2000;85(5):398–406.

Kimbell-Dunn M, Pearce N, Beasley R. Seasonal variation in asthma hospitalizations and death rates in New Zealand. *Respirology* 2000;5(3):241–246.

Kimes D, Levine E, Timmins S, Weiss SR, Bollinger ME, Blaisdell C. Temporal dynamics of emergency department and hospital admissions of pediatric asthmatics. *Environ Res* 2004;94(1):7–17.

Kips JC, O'Connor BJ, Inman MD, Svensson K, Pauwels RA, O'Byrne PM. A long-term study of the antiinflammatory effect of low-dose budesonide plus formoterol versus high-dose budesonide in asthma. *Am J Respir Crit Care Med* 2000;161(3 Pt 1):996–1001.

Kishida M, Suzuki I, Kabayama H, Koshibu T, Izawa M, Takeshita Y, Kurita F, Okada M, Shinomiya N, Aoki T. Mouthpiece versus facemask for delivery of nebulized salbutamol in exacerbated childhood asthma. *J Asthma* 2002;39(4):337–339.

Kishiyama JL, Valacer D, Cunningham-Rundles C, Sperber K, Richmonde GW, Abramson S, Glovsky M, Stiehm R, Stocks J, Rosenberg L, et al. A multicenter, randomized, double-blind, placebo-controlled trial of high-dose intravenous immunoglobulin for oral corticosteroid-dependent asthma. *Clin Immunol* 1999;91(2):126–133.

Kissoon N. Acute asthma: under attack. *Curr Opin Pediatr* 2002;14(3):298–302.

Kissoon N. Acute severe asthma in children. Issues related to management. *Minerva Pediatr* 2003;55(4):303–321.

Klein JJ, van der Palen J, van den Hof S, Rovers MM. Self-treatment by adults during slow-onset exacerbations of asthma. *Patient Educ Couns* 1997;32(1 Suppl):S61–S66.

Klein JJ, van der Palen J, Uil SM, Zielhuis GA, Seydel ER, van Herwaarden CL. Benefit from the inclusion of self-treatment guidelines to a self-management programme for adults with asthma. *Eur Respir J* 2001;17(3):386–394.

Klig JE, Hodge D III, Rutherford MW. Symptomatic improvement following emergency department management of asthma: a pilot study of intramuscular dexamethasone versus oral prednisone. *J Asthma* 1997;34(5):419–425.

Klingman D, Bielory L, Wang Y, Silverman S, Bell CF, Joy KA, Dever MT, Jones DA. Asthma outcome changes associated with use of the leukotriene-receptor antagonist zafirlukast. *Manag Care Interface* 2001;14(2):62–66.

Klinnert MD, Liu AH, Pearson MR, Ellison MC, Budhiraja N, Robinson JL. Short-term impact of a randomized multifaceted intervention for wheezing infants in low-income families. *Arch Pediatr Adolesc Med* 2005;159(1):75–82.

Kljakovic M, McLeod D. Management of acute asthma: gaps between opinion and recorded action by general practitioners. *Int J Qual Health Care* 1997;9(6):405–412.

Knapp B, Wood C. The prehospital administration of intravenous methylprednisolone lowers hospital admission rates for moderate to severe asthma. *Prehosp Emerg Care* 2003;7(4):423–426.

Knight JM, Eliopoulos C, Klein J, Greenwald M, Koren G. Pharmacokinetic predisposition to nicotine from environmental tobacco smoke: a risk factor for pediatric asthma. *J Asthma* 1998;35(1):113–117.

Knoell DL, Pierson JF, Marsh CB, Allen JN, Pathak DS. Measurement of outcomes in adults receiving pharmaceutical care in a comprehensive asthma outpatient clinic. *Pharmacotherapy* 1998;18(6):1365–1374.

Knoell DL, Lucas J, Allen JN. Churg-Strauss syndrome associated with zafirlukast. *Chest* 1998;114(1):332–334.

Knorr B, Franchi LM, Bisgaard H, Vermeulen JH, LeSouef P, Santanello N, Michele TM, Reiss TF, Nguyen HH, Bratton DL. Montelukast, a leukotriene receptor antagonist, for the treatment of persistent asthma in children aged 2 to 5 years. *Pediatrics* 2001;108(3):E48.

Knorr RS, Condon SK, Dwyer FM, Hoffman DF. Tracking pediatric asthma: the Massachusetts experience using school health records. *Environ Health Perspect* 2004;112(14):1424–1427.

Koenig JQ, Jansen K, Mar TF, Lumley T, Kaufman J, Trenga CA, Sullivan J, Liu LJ, Shapiro GG, Larson TV. Measurement of offline exhaled nitric oxide in a study of community exposure to air pollution. *Environ Health Perspect* 2003;111(13):1625–1629.

Koh YI, Choi S. Blood eosinophil counts for the prediction of the severity of exercise-induced bronchospasm in asthma. *Respir Med* 2002;96(2):120–125.

Koh YI, Choi IS, Lim H. Atopy may be related to exercise-induced bronchospasm in asthma. *Clin Exp Allergy* 2002;32(4):532–536.

Koh YY, Jeong JH, Jin SM, Kim CK, Min KU. The occurrence of late asthmatic response to exercise after allergen challenge. *Ann Allergy Asthma Immunol* 1998;81(4):366–372.

Koh YY, Sun YH, Lim HS, Kim CK, Hong SJ. Effect of inhaled budesonide on bronchial hyperresponsiveness in adolescents with clinical remission of asthma. *Chest* 2001;120(4):1140–1146.

Koh YY, Park Y, Kim CK. The importance of maximal airway response to methacholine in the prediction of wheezing development in patients with cough-variant asthma. *Allergy* 2002;57(12):1165–1170.

Koh YY, Lee MH, Sun YH, Park Y, Kim CK. Improvement in bronchial hyperresponsiveness with inhaled corticosteroids in children with asthma: importance of family history of bronchial hyperresponsiveness. *Am J Respir Crit Care Med* 2002;166(3):340–345.

Koh YY, Park Y, Jeong JH, Kim CK, Kim JT. Relationship of wheezing to airflow obstruction in asthmatic children and a history of cough-variant asthma. *J Asthma* 2002;39(4):307–314.

Kohen DP, Wynne E. Applying hypnosis in a preschool family asthma education program: uses of storytelling, imagery, and relaxation. *Am J Clin Hypn* 1997;39(3):169–181.

Kohno Y, Minoguchi K, Oda N, Yokoe T, Yamashita N, Sakane T, Adachi M. Effect of rush immunotherapy on airway inflammation and airway hyperresponsiveness after bronchoprovocation with allergen in asthma. *J Allergy Clin Immunol* 1998;102(6 Pt 1):927–934.

Kolbe J, Vamos M, Fergusson W, Elkind G, Garrett J. Differential influences on asthma self-management knowledge and self-management behavior in acute severe asthma. *Chest* 1996;110(6):1463–1468.

Kolbe J, Vamos M, James F, Elkind G, Garrett J. Assessment of practical knowledge of self-management of acute asthma. *Chest* 1996;109(1):86–90.

Kolbe J, Vamos M, Fergusson W. Socio-economic disadvantage, quality of medical care and admission for acute severe asthma. *Aust NZ J Med* 1997;27(3):294–300.

Kolbe J, Fergusson W, Garrett J. Rapid onset asthma: a severe but uncommon manifestation. *Thorax* 1998;53(4):241–247.

Kolbe J, Vamos M, Fergusson W, Elkind G. Determinants of management errors in acute severe asthma. *Thorax* 1998;53(1):14–20.

Kolbe J, Fergusson W, Vamos M, Garrett J. Case-control study of severe life threatening asthma (SLTA) in adults: demographics, health care, and management of the acute attack. *Thorax* 2000;55(12):1007–1015.

Kolbe J, Fergusson W, Vamos M, Garrett J. Case-control study of severe life threatening asthma (SLTA) in adults: psychological factors. *Thorax* 2002;57(4):317–322.

Kong PM, Chan CC, Lee P, Wang YT. An assessment of the role of exhaled carbon monoxide in acute asthmatic exacerbations in hospitalised patients. *Singapore Med J* 2002;43(8):399–402.

Konig P. Evidence for benefits of early intervention with non-steroidal drugs in asthma. *Pediatr Pulmonol Suppl* 1997;15:34–39.

Korosec M, Novak RD, Myers E, Skowronski M, McFadden ER Jr. Salmeterol does not compromise the bronchodilator response to albuterol during acute episodes of asthma. *Am J Med* 1999;107(3):209–213.

Kos-Kudla B, Ostrowska Z, Marek B, Ciesielska-Kopacz N, Sieminska L, Kajdaniuk D, Nowak M, Kudla M. Hormone replacement therapy in postmenopausal asthmatic women. *J Clin Pharm Ther* 2000;25(6):461–466.

Kos-Kudla B, Ostrowska Z, Marek B, Ciesielska-Kopacz N, Kudla M, Kajdaniuk D, Siemidska L, Strzelczyk J. Circadian serum levels of dehydroepiandrosterone sulphate in postmenopausal asthmatic women before and after long-term hormone replacement. *Endocr Regul* 2001;35(4):217–222.

Kos-Kudla B, Ostrowska Z, Marek B, Ciesielska-Kopacz N, Kajdaniuk D, Kudla M. Effects of hormone replacement therapy on endocrine and spirometric parameters in asthmatic postmenopausal women. *Gynecol Endocrinol* 2001;15(4):304–311.

Kos-Kudla B, Ostrowska Z, Marek B, Kajdaniuk D, Ciesielska-Kopacz N, Kudla M, Mazur B, Glogowska-Szelag J, Nasiek M. Circadian rhythm of melatonin in postmenopausal asthmatic women with hormone replacement therapy. *Neuro Endocrinol Lett* 2002;23(3):243–248.

Koskela HO, Hyvarinen L, Brannan JD, Chan HK, Anderson SD. Responsiveness to three bronchial provocation tests in patients with asthma. *Chest* 2003;124(6):2171–2177.

Koskela HO, Hyvarinen L, Brannan JD, Chan HK, Anderson SD. Sensitivity and validity of three bronchial provocation tests to demonstrate the effect of inhaled corticosteroids in asthma. *Chest* 2003;124(4):1341–1349.

Koskela T, Malmstrom K, Sairanen U, Peltola S, Keski-Karhu J, Silvasti M. Efficacy of salbutamol via Easyhaler unaffected by low inspiratory flow. *Respir Med* 2000;94(12):1229–1233.

Kostadima E, Tsiodras S, Alexopoulos EI, Kaditis AG, Mavrou I, Georgatou N, Papamichalopoulos A. Clarithromycin reduces the severity of bronchial hyperresponsiveness in patients with asthma. *Eur Respir J* 2004;23(5):714–717.

Kostikas K, Papatheodorou G, Ganas K, Psathakis K, Panagou P, Loukides S. pH in expired breath condensate of patients with inflammatory airway diseases. *Am J Respir Crit Care Med* 2002;165(10):1364–1370.

Kotses H, Bernstein IL, Bernstein DI, Reynolds RV, Korbee L, Wigal JK, Ganson E, Stout C, Creer TL. A self-management program for adult asthma. Part I: Development and evaluation. *J Allergy Clin Immunol* 1995;95(2):529–540.

Koury TG, Counselman FL, Huff JS, Peebles JS, Kolm P. Comparison of peak expiratory flow rate with speaking time in ED patients presenting with acute exacerbation of asthma. *Am J Emerg Med* 1998;16(6):572–575.

Kradjan WA, Schulz R, Christensen DB, Stergachis A, Sullivan S, Fullerton DS, Sturm L, Schneider G. Patients' perceived benefit from and satisfaction with asthma-related pharmacy services. *J Am Pharm Assoc (Wash)* 1999;39(5):658–666.

Kraft M, Cassell GH, Henson JE, Watson H, Williamson J, Marmion BP, Gaydos CA, Martin RJ. Detection of Mycoplasma pneumoniae in the airways of adults with chronic asthma. *Am J Respir Crit Care Med* 1998;158(3):998–1001.

Kraft M, Cassell GH, Pak J, Martin RJ. Mycoplasma pneumoniae and Chlamydia pneumoniae in asthma: effect of clarithromycin. *Chest* 2002;121(6):1782–1788.

Kraft M, Martin RJ, Lazarus SC, Fahy JV, Boushey HA, Lemanske RF Jr, Szefler SJ. Airway tissue mast cells in persistent asthma: predictor of treatment failure when patients discontinue inhaled corticosteroids. *Chest* 2003;124(1):42–50.

Krakowiak A, Szulc B, Gorski P. Allergy to laboratory animals in children of parents occupationally exposed to mice, rats and hamsters. *Eur Respir J* 1999;14(2):352–356.

Kramarz P, DeStefano F, Gargiullo PM, Chen RT, Lieu TA, Davis RL, Mullooly JP, Black SB, Shinefield HR, Bohlke K, et al. Does influenza vaccination prevent asthma exacerbations in children? *J Pediatr* 2001;138(3):306–310.

Kress JP, Noth I, Gehlbach BK, Barman N, Pohlman AS, Miller A, Morgan S, Hall JB. The utility of albuterol nebulized with heliox during acute asthma exacerbations. *Am J Respir Crit Care Med* 2002;165(9):1317–1321.

Kreutzer ML, Louie S. Pharmacologic treatment of the adult hospitalized asthma patient. *Clin Rev Allergy Immunol* 2001;20(3):357–383.

Krieger JW, Takaro TK, Song L, Weaver M. The Seattle-King County Healthy Homes Project: a randomized, controlled trial of a community health worker intervention to decrease exposure to indoor asthma triggers. *Am J Public Health* 2005;95(4):652–659.

Krishna S, Francisco BD, Balas EA, Konig P, Graff GR, Madsen RW. Internet-enabled interactive multimedia asthma education program: a randomized trial. *Pediatrics* 2003;111(3):503–510.

Krishnan JA, Diette GB, Skinner EA, Clark BD, Steinwachs D, Wu AW. Race and sex differences in consistency of care with national asthma guidelines in managed care organizations. *Arch Intern Med* 2001;161(13):1660–1668.

Krishnan JA, Riekert KA, McCoy JV, Stewart DY, Schmidt S, Chanmugam A, Hill P, Rand CS. Corticosteroid use after hospital discharge among high-risk adults with asthma. *Am J Respir Crit Care Med* 2004;170(12):1281–1285.

Krommydas GC, Gourgoulianis KI, Angelopoulos NV, Kotrotsiou E, Raftopoulos V, Molyvdas PA. Depression and pulmonary function in outpatients with asthma. *Respir Med* 2004;98(3):220–224.

Kruse M, Rosenkranz B, Dobson C, Ayre G, Horowitz A. Safety and tolerability of high-dose formoterol (Aerolizer) and salbutamol (pMDI) in patients with mild/moderate, persistent asthma. *Pulm Pharmacol Ther* 2005;18(3):229–234.

Kucera CM, Greenberger PA, Yarnold PR, Choy AC, Levenson T. An attempted prospective testing of an asthma severity index and a quality of life survey for 1 year in ambulatory patients with asthma. *Allergy Asthma Proc* 1999;20(1):29–38.

Kudukis TM, Manthous CA, Schmidt GA, Hall JB, Wylam ME. Inhaled helium-oxygen revisited: effect of inhaled helium-oxygen during the treatment of status asthmaticus in children. *J Pediatr* 1997;130(2):217–224.

Kuehni CE, Frey U. Age-related differences in perceived asthma control in childhood: guidelines and reality. *Eur Respir J* 2002;20(4):880–889.

Kumar R, Gaur SN. Prevalence of allergic bronchopulmonary aspergillosis in patients with bronchial asthma. *Asian Pac J Allergy Immunol* 2000;18(4):181–185.

Kumar SS, Shanmugasundaram KR. Amrita Bindu—an antioxidant inducer therapy in asthma children. *J Ethnopharmacol* 2004;90(1):105–114.

Kumaratne M, Gunawardane G. Addition of ipratropium to nebulized albuterol in children with acute asthma presenting to a pediatric office. *Clin Pediatr (Phila)* 2003;42(2):127–132.

Kuna P, Joubert JR, Greefhorst LA, Magnussen H. A randomized, double-blind, double-dummy, parallel-group, multicenter, dose-reduction trial of the minimal effective doses of budesonide and fluticasone dry-powder inhalers in adults with mild to moderate asthma. *Clin Ther* 2003;25(8):2182–2197.

Kunkel G, Magnussen H, Bergmann K, Juergens UR, de Mey C, Freund E, Hinzmann R, Beckers B. Respimat (a new soft mist inhaler) delivering fenoterol plus ipratropium bromide

provides equivalent bronchodilation at half the cumulative dose compared with a conventional metered dose inhaler in asthmatic patients. *Respiration* 2000;67(3):306–314.

Kuntz KM, Kitch BT, Fuhlbrigge AL, Paltiel AD, Weiss ST. A novel approach to defining the relationship between lung function and symptom status in asthma. *J Clin Epidemiol* 2002;55(1):11–18.

Kunzli N, Schwartz J, Stutz EZ, Ackermann-Liebrich U, Leuenberger P. Association of environmental tobacco smoke at work and forced expiratory lung function among never smoking asthmatics and non-asthmatics. The SAPALDIA-Team. Swiss Study on Air Pollution and Lung Disease in Adults. *Soz Praventivmed* 2000;45(5):208–217.

Kurz H, Riedler J. Inhalation devices for the treatment of asthma—how much do paediatricians know about their correct use? *Wien Klin Wochenschr* 1999;111(11):443–445.

Kuschner WG, Hankinson TC, Wong HH, Blanc PD. Nonprescription bronchodilator medication use in asthma. *Chest* 1997;112(4):987–993.

Kuusela AL, Marenk M, Sandahl G, Sanderud J, Nikolajev K, Persson B. Comparative study using oral solutions of bambuterol once daily or terbutaline three times daily in 2–5-year-old children with asthma. Bambuterol Multicentre Study Group. *Pediatr Pulmonol* 2000;29(3):194–201.

Kwan-Gett TS, Lozano P, Mullin K, Marcuse EK. One-year experience with an inpatient asthma clinical pathway. *Arch Pediatr Adolesc Med* 1997;151(7):684–689.

Kyngas H. Patient education: perspective of adolescents with a chronic disease. *J Clin Nurs* 2003;12(5):744–751.

Kyngas HA, Skaar-Chandler CA, Duffy ME. The development of an instrument to measure the compliance of adolescents with a chronic disease. *J Adv Nurs* 2000;32(6):1499–1506.

L'Her E, Monchi M, Joly B, Marichy J, Lejay M, Dhainaut JF. Helium-oxygen breathing in the early emergency care of acute severe asthma: a randomized pilot study. *Eur J Emerg Med* 2000;7(4):271–275.

La Grutta S, Gagliardo R, Mirabella F, Pajno GB, Bonsignore G, Bousquet J, Bellia V, Vignola AM. Clinical and biological heterogeneity in children with moderate asthma. *Am J Respir Crit Care Med* 2003;167(11):1490–1495.

La Roche MJ, Koinis-Mitchell D, Gualdrón L. A culturally competent asthma management intervention: a randomized controlled pilot study. *Ann Allergy Asthma Immunol* 2006;96(1):80–85.

Labelle M, Beaulieu M, Renzi P, Rahme E, Thivierge RL. Integrating clinical practice guidelines into daily practice: impact of an interactive workshop on drafting of a written action plan for asthma patients. *J Contin Educ Health Prof* 2004;24(1):39–49.

LaForce C, Prenner BM, Andriano K, Lavecchia C, Yegen U. Efficacy and safety of formoterol delivered via a new multidose dry powder inhaler (CertiHaler) in adolescents and adults with persistent asthma. *J Asthma* 2005;42(2):101–106.

LaForce CF, Pearlman DS, Ruff ME, Silvers WS, Weinstein SW, Clements DS, Brown A, Duke S, Harding SM, House KW. Efficacy and safety of dry powder fluticasone propionate in children with persistent asthma. *Ann Allergy Asthma Immunol* 2000;85(5):407–415.

Laforest L, Pacheco Y, Bartsch P, Vincken W, Pietri G, Ernst P, Berard A, Van Ganse E. Correlates of quality of life in patients with asthma. *Ann Allergy Asthma Immunol* 2005;94(4):473–479.

Lagerlov P, Veninga CC, Muskova M, Hummers-Pradier E, Stalsby LC, Andrew M, Haaijer-Ruskamp FM. Asthma management in five European countries: doctors' knowledge, attitudes and prescribing behaviour. Drug Education Project (DEP) group. *Eur Respir J* 2000;15(1):25–29.

Lagerlov P, Loeb M, Andrew M, Hjortdahl P. Improving doctors' prescribing behaviour through reflection on guidelines and prescription feedback: a randomised controlled study. *Qual Health Care* 2000;9(3):159–165.

Lagerlov P, Hjortdahl P, Saxegaard L, Andrew M, Matheson I. Structuring prescribing data into traffic-light categories; a tool for evaluating treatment quality in primary care. *Fam Pract* 2001;18(5):528–533.

Lahdensuo A, Haahtela T, Herrala J, Kava T, Kiviranta K, Kuusisto P, Peramaki E, Poussa T, Saarelainen S, Svahn T. Randomised comparison of guided self management and traditional treatment of asthma over one year. *BMJ* 1996;312(7033):748–752.

Lahn M, Bijur P, Gallagher EJ. Randomized clinical trial of intramuscular vs oral methylprednisolone in the treatment of asthma exacerbations following discharge from an emergency department. *Chest* 2004;126(2):362–368.

Lalloo U. Symbicort: controlling asthma in adults. *Respir Med* 2002;96 Suppl A:S16–S22.

Lalloo UG, Malolepszy J, Kozma D, Krofta K, Ankerst J, Johansen B, Thomson NC. Budesonide and formoterol in a single inhaler improves asthma control compared with increasing the dose of corticosteroid in adults with mild-to-moderate asthma. *Chest* 2003;123(5):1480–1487.

Lam SM, Huang SC. Premenstrual asthma: report of a case with hormonal studies. *J Microbiol Immunol Infect* 1998;31(3):197–199.

Landwehr LP, Jeppson JD, Katlan MG, Esterl B, McCormick D, Hamilos DL, Gelfand EW. Benefits of high-dose i.v. immunoglobulin in patients with severe steroid-dependent asthma. *Chest* 1998;114(5):1349–1356.

Lanes SF, Garrett JE, Wentworth CE III, FitzGerald JM, Karpel JP. The effect of adding ipratropium bromide to salbutamol in the treatment of acute asthma: a pooled analysis of three trials. *Chest* 1998;114(2):365–372.

Lanes SF, Lanza LL, Wentworth CE III. Risk of emergency care, hospitalization, and ICU stays for acute asthma among recipients of salmeterol. *Am J Respir Crit Care Med* 1998;158(3):857–861.

Lang DM, Sherman MS, Polansky M. Guidelines and realities of asthma management. The Philadelphia story. *Arch Intern Med* 1997;157(11):1193–1200.

Lange P, Parner J, Prescott E, Ulrik CS, Vestbo J. Exogenous female sex steroid hormones and risk of asthma and asthma-like symptoms: a cross sectional study of the general population. *Thorax* 2001;56(8):613–616.

Lange P, Scharling H, Ulrik CS, Vestbo J. Inhaled corticosteroids and decline of lung function in community residents with asthma. *Thorax* 2006;61(2):100–104.

Langley SJ, Sykes AP, Batty EP, Masterson CM, Woodcock A. A comparison of the efficacy and tolerability of single doses of HFA 134a albuterol and CFC albuterol in mild-to-moderate asthmatic patients. *Ann Allergy Asthma Immunol* 2002;88(5):488–493.

Langley SJ, Goldthorpe S, Craven M, Morris J, Woodcock A, Custovic A. Exposure and sensitization to indoor allergens: association with lung function, bronchial reactivity, and exhaled nitric oxide measures in asthma. *J Allergy Clin Immunol* 2003;112(2):362–368.

Langley SJ, Goldthorpe S, Custovic A, Woodcock A. Relationship among pulmonary function, bronchial reactivity, and exhaled nitric oxide in a large group of asthmatic patients. *Ann Allergy Asthma Immunol* 2003;91(4):398–404.

Langton HS, Hobbs J, Reid F, Lenney W. Prednisolone in acute childhood asthma: clinical responses to three dosages. *Respir Med* 1998;92(3):541–546.

Lannero E, Wickman M, Pershagen G, Nordvall L. Maternal smoking during pregnancy increases the risk of recurrent wheezing during the first years of life (BAMSE). *Respir Res* 2006;7:3.

Lanphear BP, Kahn RS, Berger O, Auinger P, Bortnick SM, Nahhas RW. Contribution of residential exposures to asthma in us children and adolescents. *Pediatrics* 2001;107(6):E98.

Lantner R, Brennan RA, Gray L, McElroy D. Inpatient management of asthma in the Chicago suburbs: the Suburban Asthma Management Initiative (SAMI). *J Asthma* 2005;42(1):55–63.

Lanz MJ, Leung DY, McCormick DR, Harbeck R, Szeffler SJ, White CW. Comparison of exhaled nitric oxide, serum eosinophilic cationic protein, and soluble interleukin-2 receptor in exacerbations of pediatric asthma. *Pediatr Pulmonol* 1997;24(5):305–311.

Lanz MJ, Leung DY, White CW. Comparison of exhaled nitric oxide to spirometry during emergency treatment of asthma exacerbations with glucocorticoids in children. *Ann Allergy Asthma Immunol* 1999;82(2):161–164.

Lara M, Duan N, Sherbourne C, Lewis MA, Landon C, Halfon N, Brook RH. Differences between child and parent reports of symptoms among Latino children with asthma. *Pediatrics* 1998;102(6):E68.

Lara M, Allen F, Lange L. Physician perceptions of barriers to care for inner-city Latino children with asthma. *J Health Care Poor Underserved* 1999;10(1):27–44.

Lara M, Duan N, Sherbourne C, Halfon N, Leibowitz A, Brook RH. Children's use of emergency departments for asthma: persistent barriers or acute need? *J Asthma* 2003;40(3):289–299.

Larsen FO, Norn S, Mordhorst CH, Skov PS, Milman N, Clementsen P. Chlamydia pneumoniae and possible relationship to asthma. Serum immunoglobulins and histamine release in patients and controls. *APMIS* 1998;106(10):928–934.

Larsson LG, Lindberg A, Franklin KA, Lundback B. Symptoms related to obstructive sleep apnoea are common in subjects with asthma, chronic bronchitis and rhinitis in a general population. *Respir Med* 2001;95(5):423–429.

Larsson ML, Frisk M, Hallstrom J, Kiviloog J, Lundback B. Environmental tobacco smoke exposure during childhood is associated with increased prevalence of asthma in adults. *Chest* 2001;120(3):711–717.

Lau S, Illi S, Sommerfeld C, Niggemann B, Bergmann R, von Mutius E, Wahn U. Early exposure to house-dust mite and cat allergens and development of childhood asthma: a cohort study. Multicentre Allergy Study Group. *Lancet* 2000;356(9239):1392–1397.

Lau TT, Zed PJ. Does ketamine have a role in managing severe exacerbation of asthma in adults? *Pharmacotherapy* 2001;21(9):1100–1106.

Laviolette M, Malmstrom K, Lu S, Chervinsky P, Pujet JC, Peszek I, Zhang J, Reiss TF. Montelukast added to inhaled beclomethasone in treatment of asthma. Montelukast/Beclomethasone Additivity Group. *Am J Respir Crit Care Med* 1999;160(6):1862–1868.

Lavorini F, Fontana GA, Pantaleo T, Camiciottoli G, Castellani W, Maluccio NM, Pistolesi M. Fog-induced respiratory responses are attenuated by nedocromil sodium in humans. *Am J Respir Crit Care Med* 2001;163(5):1117–1120.

Lawrence G. Asthma self-management programs can reduce the need for hospital-based asthma care. *Respir Care* 1995;40(1):39–43.

Lazarus SC, Wong HH, Watts MJ, Boushey HA, Lavins BJ, Minkwitz MC. The leukotriene receptor antagonist zafirlukast inhibits sulfur dioxide-induced bronchoconstriction in patients with asthma. *Am J Respir Crit Care Med* 1997;156(6):1725–1730.

Lazarus SC, Lee T, Kemp JP, Wenzel S, Dube LM, Ochs RF, Carpentier PJ, Lancaster JF. Safety and clinical efficacy of zileuton in patients with chronic asthma. *Am J Manag Care* 1998;4(6):841–848.

Lazarus SC, Boushey HA, Fahy JV, Chinchilli VM, Lemanske RF Jr, Sorkness CA, Kraft M, Fish JE, Peters SP, Craig T, et al.; Asthma Clinical Research Network for the National Heart, Lung, and Blood Institute. Long-acting beta<sub>2</sub>-agonist monotherapy vs continued therapy with inhaled corticosteroids in patients with persistent asthma: a randomized controlled trial. *JAMA* 2001;285(20):2583–2593.

Le Moual N, Siroux V, Pin I, Kauffmann F, Kennedy SM. Asthma severity and exposure to occupational asthmogens. *Am J Respir Crit Care Med* 2005;172(4):440–445.

Leaderer BP, Belanger K, Triche E, Holford T, Gold DR, Kim Y, Jankun T, Ren P, McSharry JE JE, Platts-Mills TA, et al. Dust mite, cockroach, cat, and dog allergen concentrations in homes of asthmatic children in the northeastern United States: impact of socioeconomic factors and population density. *Environ Health Perspect* 2002;110(4):419–425.

Lee DK, Jackson CM, Currie GP, Cockburn WJ, Lipworth BJ. Comparison of combination inhalers vs inhaled corticosteroids alone in moderate persistent asthma. *Br J Clin Pharmacol* 2003;56(5):494–500.

Lee DK, Jackson CM, Bates CE, Lipworth BJ. Cross tolerance to salbutamol occurs independently of beta<sub>2</sub> adrenoceptor genotype-16 in asthmatic patients receiving regular formoterol or salmeterol. *Thorax* 2004;59(8):662–667.

Lee DK, Haggart K, Robb FM, Lipworth BJ. Butterbur, a herbal remedy, confers complementary anti-inflammatory activity in asthmatic patients receiving inhaled corticosteroids. *Clin Exp Allergy* 2004;34(1):110–114.

Lee DK, Fardon TC, Bates CE, Haggart K, McFarlane LC, Lipworth BJ. Airway and systemic effects of hydrofluoroalkane formulations of high-dose ciclesonide and fluticasone in moderate persistent asthma. *Chest* 2005;127(3):851–860.

Lee KH, Tan WC, Lim TK. Severe asthma. *Singapore Med J* 1997;38(6):238–240, 243.

Lee PL, Luo JP, Shieh WM, Nien CT, Yang PC, Kuo SH. Hospital-based management of acute asthmatic exacerbation: an assessment of physicians' behavior in Taiwan. *J Asthma* 2001;38(7):575–583.

Lee PY, Khoo EM. Asthma control and prior medical care of patients presenting with acute asthma at the emergency department. *Med J Malaysia* 2003;58(4):482–489.

Lee S, Kirking DM, Erickson SR. Methods of measuring asthma severity and influence on patient assignment. *Ann Allergy Asthma Immunol* 2003;91(5):449–454.

Lee YL, Lin YC, Hsiue TR, Hwang BF, Guo YL. Indoor and outdoor environmental exposures, parental atopy, and physician-diagnosed asthma in Taiwanese schoolchildren. *Pediatrics* 2003;112(5):e389.

Lee YL, Hsiue TR, Lee CH, Su HJ, Guo YL. Home exposures, parental atopy, and occurrence of asthma symptoms in adulthood in southern Taiwan. *Chest* 2006;129(2):300–308.

Lee YM, Park JS, Hwang JH, Park SW, Uh ST, Kim YH, Park CS. High-resolution CT findings in patients with near-fatal asthma: comparison of patients with mild-to-severe asthma and normal control subjects and changes in airway abnormalities following steroid treatment. *Chest* 2004;126(6):1840–1848.

Lee-Wong M, Dayrit FM, Kohli AR, Acquah S, Mayo PH. Comparison of high-dose inhaled flunisolide to systemic corticosteroids in severe adult asthma. *Chest* 2002;122(4):1208–1213.

Leflein JG, Gawchik SM, Galant SP, Lyzell E, Young M, Cruz-Rivera M, Walton-Bowen K, Smith JA, Fitzpatrick S. Safety of budesonide inhalation suspension (Pulmicort Respules) after up to 52 weeks of treatment in infants and young children with persistent asthma. *Allergy Asthma Proc* 2001;22(6):359–366.

Leflein JG, Szeffler SJ, Murphy KR, Fitzpatrick S, Cruz-Rivera M, Miller CJ, Smith JA. Nebulized budesonide inhalation suspension compared with cromolyn sodium nebulizer solution for asthma in young children: results of a randomized outcomes trial. *Pediatrics* 2002;109(5):866–872.

Legorreta AP, Christian-Herman J, O'Connor RD, Hasan MM, Evans R, Leung KM. Compliance with national asthma management guidelines and specialty care: a health maintenance organization experience. *Arch Intern Med* 1998;158(5):457–464.

Legorreta AP, Leung KM, Berkbigler D, Evans R, Liu X. Outcomes of a population-based asthma management program: quality of life, absenteeism, and utilization. *Ann Allergy Asthma Immunol* 2000;85(1):28–34.

Legorreta AP, Liu X, Zaher CA, Jatulis DE. Variation in managing asthma: experience at the medical group level in California. *Am J Manag Care* 2000;6(4):445–453.

Lehrer P, Vaschillo E, Lu SE, Eckberg D, Vaschillo B, Scardella A, Habib R. Heart rate variability biofeedback: effects of age on heart rate variability, baroreflex gain, and asthma. *Chest* 2006;129(2):278–284.

Lehrer PM, Vaschillo E, Vaschillo B, Lu SE, Scardella A, Siddique M, Habib RH. Biofeedback treatment for asthma. *Chest* 2004;126(2):352–361.

Leickly FE, Wade SL, Crain E, Kruszon-Moran D, Wright EC, Evans R III. Self-reported adherence, management behavior, and barriers to care after an emergency department visit by inner city children with asthma. *Pediatrics* 1998;101(5):E8.

Lemaitre RN, Siscovick DS, Psaty BM, Pearce RM, Raghunathan TE, Whitsel EA, Weinmann SA, Anderson GD, Lin D. Inhaled beta<sub>2</sub> adrenergic receptor agonists and primary cardiac arrest. *Am J Med* 2002;113(9):711–716.

Lemanske RF Jr, Sorkness CA, Mauger EA, Lazarus SC, Boushey HA, Fahy JV, Drazen JM, Chinchilli VM, Craig T, Fish JE, et al.; Asthma Clinical Research Network for the National Heart, Lung, and Blood Institute. Inhaled corticosteroid reduction and elimination in patients with persistent asthma receiving salmeterol: a randomized controlled trial. *JAMA* 2001;285(20):2594–2603.

Lemanske RF Jr, Nayak A, McAlary M, Everhard F, Fowler-Taylor A, Gupta N. Omalizumab improves asthma-related quality of life in children with allergic asthma. *Pediatrics* 2002;110(5):e55.

Lenhardt R, Malone A, Grant EN, Weiss KB. Trends in emergency department asthma care in metropolitan Chicago: results from the Chicago Asthma Surveillance Initiative. *Chest* 2003;124(5):1774–1780.

Lenow JL, Bales R, Smullens SN. The JeffCare preceptor model for asthma: a primary care physician tutorial training model. *Dis Manag* 2003;6(1):35–42.

Leone FT, Mauger EA, Peters SP, Chinchilli VM, Fish JE, Boushey HA, Cherniack RM, Drazen JM, Fahy JV, Ford J, et al. The utility of peak flow, symptom scores, and beta-agonist use as outcome measures in asthma clinical research. *Chest* 2001;119(4):1027–1033.

Leone FT, Fish JE, Szeffler SJ, West SL. Systematic review of the evidence regarding potential complications of inhaled corticosteroid use in asthma: collaboration of American College of Chest Physicians, American Academy of Allergy, Asthma, and Immunology, and American College of Allergy, Asthma, and Immunology. *Chest* 2003;124(6):2329–2340.

Leuppi JD, Salome CM, Jenkins CR, Anderson SD, Xuan W, Marks GB, Koskela H, Brannan JD, Freed R, Andersson M, et al. Predictive markers of asthma exacerbation during stepwise dose reduction of inhaled corticosteroids. *Am J Respir Crit Care Med* 2001;163(2):406–412.

Leuppi JD, Downie SR, Salome CM, Jenkins CR, Woolcock AJ. A single high dose of inhaled corticosteroids: a possible treatment of asthma exacerbations. *Swiss Med Wkly* 2002;132(1–2):7–11.

Leuppi JD, Salzberg M, Meyer L, Bucher SE, Nief M, Brutsche MH, Tamm M. An individualized, adjustable maintenance regimen of budesonide/formoterol provides effective asthma symptom control at a lower overall dose than fixed dosing. *Swiss Med Wkly* 2003;133(21–22):302–309.

Leversha AM, Campanella SG, Aickin RP, Asher MI. Costs and effectiveness of spacer versus nebulizer in young children with moderate and severe acute asthma. *J Pediatr* 2000;136(4):497–502.

Levy BD, Kitch B, Fanta CH. Medical and ventilatory management of status asthmaticus. *Intensive Care Med* 1998;24(2):105–117.

Levy ML, Robb M, Allen J, Doherty C, Bland JM, Winter RJ. A randomized controlled evaluation of specialist nurse education following accident and emergency department attendance for acute asthma. *Respir Med* 2000;94(9):900–908.

Lewis E. Setting up a school asthma clinic. *Prof Nurse* 1999;14(12):825–827.

Lewis MA, Lewis CE, Leake B, Monahan G, Rachelefsky G. Organizing the community to target poor Latino children with asthma. *J Asthma* 1996;33(5):289–297.

Lewis SA, Weiss ST, Platts-Mills TA, Burge H, Gold DR. The role of indoor allergen sensitization and exposure in causing morbidity in women with asthma. *Am J Respir Crit Care Med* 2002;165(7):961–966.

Lewis SA, Antoniak M, Venn AJ, Davies L, Goodwin A, Salfield N, Britton J, Fogarty AW. Secondhand smoke, dietary fruit intake, road traffic exposures, and the prevalence of asthma: a cross-sectional study in young children. *Am J Epidemiol* 2005;161(5):406–411.

Lewith GT, Watkins AD, Hyland ME, Shaw S, Broomfield JA, Dolan G, Holgate ST. Use of ultramolecular potencies of allergen to treat asthmatic people allergic to house dust mite: double blind randomised controlled clinical trial. *BMJ* 2002;324(7336):520.

Lex C, Payne DN, Zacharasiewicz A, Li AM, Wilson NM, Hansel TT, Bush A. Sputum induction in children with difficult asthma: safety, feasibility, and inflammatory cell pattern. *Pediatr Pulmonol* 2005;39(4):318–324.

Li AM, Li CC, Chik KW, Shing MM, Fok TF. Rhabdomyolysis following status asthmaticus. *J Paediatr Child Health* 2001;37(4):409–410.

Li AM, Lex C, Zacharasiewicz A, Wong E, Erin E, Hansel T, Wilson NM, Bush A. Cough frequency in children with stable asthma: correlation with lung function, exhaled nitric oxide, and sputum eosinophil count. *Thorax* 2003;58(11):974–978.

Li JT, Sheeler RD, Offord KP, Patel AM, Dupras DM. Consultation for asthma: results of a generalist survey. *Ann Allergy Asthma Immunol* 1999;83(3):203–206.

Li YF, Gilliland FD, Berhane K, McConnell R, Gauderman WJ, Rappaport EB, Peters JM. Effects of in utero and environmental tobacco smoke exposure on lung function in boys and girls with and without asthma. *Am J Respir Crit Care Med* 2000;162(6):2097–2104.

Li YF, Langholz B, Salam MT, Gilliland FD. Maternal and grandmaternal smoking patterns are associated with early childhood asthma. *Chest* 2005;127(4):1232–1241.

Liam CK, Goh CT, Isahak M, Lim KH, Wong CM. Relationship between symptoms and objective measures of airway obstruction in asthmatic patients. *Asian Pac J Allergy Immunol* 2001;19(2):79–83.

Liard R, Leynaert B, Zureik M, Beguin FX, Neukirch F. Using Global Initiative for Asthma guidelines to assess asthma severity in populations. *Eur Respir J* 2000;16(4):615–620.

Lieberman DA. Management of chronic pediatric diseases with interactive health games: theory and research findings. *J Ambul Care Manage* 2001;24(1):26–38.

Liebhart J, Cembrzynska-Nowak M, Bienkowska M, Liebhart E, Dobek R, Zaczynska E, Panaszek B, Obojski A, Malolepszy J. Relevance of the selected cytokine release (TNF-alpha, IL-6, IFN-gamma, and IFN-alpha) to the exacerbation of bronchial asthma from airway mycotic infections. Predominant role of TNF-alpha? *J Investig Allergol Clin Immunol* 2002;12(3):182–191.

Lieu TA, Quesenberry CP Jr, Capra AM, Sorel ME, Martin KE, Mendoza GR. Outpatient management practices associated with reduced risk of pediatric asthma hospitalization and emergency department visits. *Pediatrics* 1997;100(3 Pt 1):334–341.

Lieu TA, Quesenberry CP, Sorel ME, Mendoza GR, Leong AB. Computer-based models to identify high-risk children with asthma. *Am J Respir Crit Care Med* 1998;157(4 Pt 1):1173–1180.

Lieu TA, Capra AM, Quesenberry CP, Mendoza GR, Mazar M. Computer-based models to identify high-risk adults with asthma: is the glass half empty of half full? *J Asthma* 1999;36(4):359–370.

Lieu TA, Lozano P, Finkelstein JA, Chi FW, Jensvold NG, Capra AM, Quesenberry CP, Selby JV, Farber HJ. Racial/ethnic variation in asthma status and management practices among children in managed medicaid. *Pediatrics* 2002;109(5):857–865.

Lieu TA, Finkelstein JA, Lozano P, Capra AM, Chi FW, Jensvold N, Quesenberry CP, Farber HJ. Cultural competence policies and other predictors of asthma care quality for Medicaid-insured children. *Pediatrics* 2004;114(1):e102–e110.

Lieutier-Colas F, Purohit A, Meyer P, Fabries JF, Kopferschmitt MC, Dessanges JF, Pauli G, de Blay F. Bronchial challenge tests in patients with asthma sensitized to cats: the importance of large particles in the immediate response. *Am J Respir Crit Care Med* 2003;167(8):1077–1082.

Lilly CM, Woodruff PG, Camargo CA Jr, Nakamura H, Drazen JM, Nadel ES, Hanrahan JP. Elevated plasma eotaxin levels in patients with acute asthma. *J Allergy Clin Immunol* 1999;104(4 Pt 1):786–790.

Lim TK, Chin NK, Lee KH, Stebbings AM. Early discharge of patients hospitalized with acute asthma: a controlled study. *Respir Med* 2000;94(12):1234–1240.

Lima JJ, Mohamed MH, Self TH, Eberle LV, Johnson JA. Importance of beta(2)adrenergic receptor genotype, gender and race on albuterol-evoked bronchodilation in asthmatics. *Pulm Pharmacol Ther* 2000;13(3):127–134.

Limb SL, Brown KC, Wood RA, Wise RA, Eggleston PA, Tonascia J, Hamilton RG, Adkinson NF Jr. Adult asthma severity in individuals with a history of childhood asthma. *J Allergy Clin Immunol* 2005;115(1):61–66.

Limb SL, Brown KC, Wood RA, Wise RA, Eggleston PA, Tonascia J, Adkinson NF Jr. Irreversible lung function deficits in young adults with a history of childhood asthma. *J Allergy Clin Immunol* 2005;116(6):1213–1219.

Lin HC, Hwang KC, Yang YH, Lin YT, Chiang BL. Risk factors of wheeze and allergy after lower respiratory tract infections during early childhood. *J Microbiol Immunol Infect* 2001;34(4):259–264.

Lin M, Chen Y, Burnett RT, Villeneuve PJ, Krewski D. The influence of ambient coarse particulate matter on asthma hospitalization in children: case-crossover and time-series analyses. *Environ Health Perspect* 2002;110(6):575–581.

Lin M, Chen Y, Burnett RT, Villeneuve PJ, Krewski D. Effect of short-term exposure to gaseous pollution on asthma hospitalisation in children: a bi-directional case-crossover analysis. *J Epidemiol Community Health* 2003;57(1):50–55.

Lin M, Chen Y, Villeneuve PJ, Burnett RT, Lemyre L, Hertzman C, McGrail KM, Krewski D. Gaseous air pollutants and asthma hospitalization of children with low household income in Vancouver, British Columbia, Canada. *Am J Epidemiol* 2004;159(3):294–303.

Lin RY, Pesola GR, Westfal RE, Bakalchuk L, Freyberg CW, Cataquet D, Heyl GT. Early parenteral corticosteroid administration in acute asthma. *Am J Emerg Med* 1997;15(7):621–625.

Lin RY, Pesola GR, Bakalchuk L, Morgan JP, Heyl GT, Freyberg CW, Cataquet D, Westfal RE. Superiority of ipratropium plus albuterol over albuterol alone in the emergency department management of adult asthma: a randomized clinical trial. *Ann Emerg Med* 1998;31(2):208–213.

Lin RY, Pesola GR, Bakalchuk L, Heyl GT, Dow AM, Tenenbaum C, Curry A, Westfal RE. Rapid improvement of peak flow in asthmatic patients treated with parenteral methylprednisolone in the emergency department: A randomized controlled study. *Ann Emerg Med* 1999;33(5):487–494.

Lin RY, Williams KD. Hypersensitivity to molds in New York City in adults who have asthma. *Allergy Asthma Proc* 2003;24(1):13–18.

Lin S, Munsie JP, Hwang SA, Fitzgerald E, Cayo MR. Childhood asthma hospitalization and residential exposure to state route traffic. *Environ Res* 2002;88(2):73–81.

Lin SJ, Chang LY, Yan DC, Huang YJ, Lin TJ, Lin TY. Decreased intercellular adhesion molecule-1 (CD54) and L-selectin (CD62L) expression on peripheral blood natural killer cells in asthmatic children with acute exacerbation. *Allergy* 2003;58(1):67–71.

Lin YZ, Huang FY. Comparison of breath-actuated and conventional constant-flow jet nebulizers in treating acute asthmatic children. *Acta Paediatr Taiwan* 2004;45(2):73–76.

Lindberg M, Ahlner J, Moller M, Ekstrom T. Asthma nurse practice—a resource-effective approach in asthma management. *Respir Med* 1999;93(8):584–588.

Lindberg M, Ekstrom T, Moller M, Ahlner J. Asthma care and factors affecting medication compliance: the patient's point of view. *Int J Qual Health Care* 2001;13(5):375–383.

Lindberg M, Ahlner J, Ekstrom T, Jonsson D, Moller M. Asthma nurse practice improves outcomes and reduces costs in primary health care. *Scand J Caring Sci* 2002;16(1):73–78.

Linde K Jobst KA. Homeopathy for chronic asthma. *Cochrane Database Syst Rev* 2000;(2):CD000353.

Linde K, Jobst K, Panton J. Acupuncture for chronic asthma. *Cochrane Database Syst Rev* 2000;(2):CD000008.

Linneberg A, Henrik NN, Frolund L, Madsen F, Dirksen A, Jorgensen T. The link between allergic rhinitis and allergic asthma: a prospective population-based study. The Copenhagen Allergy Study. *Allergy* 2002;57(11):1048–1052.

Lipsett M, Hurley S, Ostro B. Air pollution and emergency room visits for asthma in Santa Clara County, California. *Environ Health Perspect* 1997;105(2):216–222.

Lipworth BJ, Dempsey OJ, Aziz I, Wilson AM. Effects of adding a leukotriene antagonist or a long-acting beta(2)-agonist in asthmatic patients with the glycine-16 beta(2)-adrenoceptor genotype. *Am J Med* 2000;109(2):114–121.

Lipworth BJ, Lee DK, Anhoj J, Bisgaard H. Effect of plastic spacer handling on salbutamol lung deposition in asthmatic children. *Br J Clin Pharmacol* 2002;54(5):544–547.

Lipworth BJ, Kaliner MA, LaForce CF, Baker JW, Kaiser HB, Amin D, Kundu S, Williams JE, Engelstaetter R, Banerji DD. Effect of ciclesonide and fluticasone on hypothalamic-pituitary-adrenal axis function in adults with mild-to-moderate persistent asthma. *Ann Allergy Asthma Immunol* 2005;94(4):465–472.

Lisper B, Nilsson JL. The asthma year in Swedish pharmacies: a nationwide information and pharmaceutical care program for patients with asthma. *Ann Pharmacother* 1996;30(5):455–460.

Litonjua AA, Sparrow D, Weiss ST, O'Connor GT, Long AA, Ohman JL Jr. Sensitization to cat allergen is associated with asthma in older men and predicts new-onset airway hyperresponsiveness. The Normative Aging Study. *Am J Respir Crit Care Med* | 1997;156(1):23–27.

Litonjua AA, Carey VJ, Burge HA, Weiss ST, Gold DR. Exposure to cockroach allergen in the home is associated with incident doctor-diagnosed asthma and recurrent wheezing. *J Allergy Clin Immunol* 2001;107(1):41–47.

Little SA, Chalmers GW, Macleod KJ, McSharry C, Thomson NC. Non-invasive markers of airway inflammation as predictors of oral steroid responsiveness in asthma. *Thorax* 2000;55(3):232–234.

Littner MR, Leung FW, Ballard ED, Huang B, Samra NK. Effects of 24 weeks of lansoprazole therapy on asthma symptoms, exacerbations, quality of life, and pulmonary function in adult asthmatic patients with acid reflux symptoms. *Chest* 2005;128(3):1128–1135.

Liu LY, Coe CL, Swenson CA, Kelly EA, Kita H, Busse WW. School examinations enhance airway inflammation to antigen challenge. *Am J Respir Crit Care Med* 2002;165(8):1062–1067.

Liu MY, Jennings JP, Samuelson WM, Sullivan CA, Veltri JC. Asthma patients' satisfaction with the frequency and content of pharmacist counseling. *J Am Pharm Assoc (Wash)* 1999;39(4):493–498.

Llewellyn P, Sawyer G, Lewis S, Cheng S, Weatherall M, Fitzharris P, Beasley R. The relationship between FEV<sub>1</sub> and PEF in the assessment of the severity of airways obstruction. *Respirology* 2002;7(4):333–337.

Loew TH, Tritt K, Siegfried W, Bohmann H, Martus P, Hahn EG. Efficacy of 'functional relaxation' in comparison to terbutaline and a 'placebo relaxation' method in patients with acute asthma. A randomized, prospective, placebo-controlled, crossover experimental investigation. *Psychother Psychosom* 2001;70(3):151–157.

Lombardi C, Gargioni S, Venturi S, Zoccali P, Canonica GW, Passalacqua G. Controlled study of preseasonal immunotherapy with grass pollen extract in tablets: effect on bronchial hyperreactivity. *J Investig Allergol Clin Immunol* 2001;11(1):41–45.

Lonnqvist K, Hallden G, Dahlen SE, Enander I, Hage-Hamsten M, Kumlin M, Hedlin G. Markers of inflammation and bronchial reactivity in children with asthma, exposed to animal dander in school dust. *Pediatr Allergy Immunol* 1999;10(1):45–52.

Lonnqvist K, Hellman C, Lundahl J, Hallden G, Hedlin G. Eosinophil markers in blood, serum, and urine for monitoring the clinical course in childhood asthma: impact of budesonide treatment and withdrawal. *J Allergy Clin Immunol* 2001;107(5):812–817.

Lopez-Vina A, Castillo-Arevalo E. Influence of peak expiratory flow monitoring on an asthma self-management education programme. *Respir Med* 2000;94(8):760–766.

Lotvall J, Palmqvist M, Arvidsson P, Maloney A, Ventresca GP, Ward J. The therapeutic ratio of R-albuterol is comparable with that of RS-albuterol in asthmatic patients. *J Allergy Clin Immunol* 2001;108(5):726–731.

Love MM, Mainous AG III, Talbert JC, Hager GL. Continuity of care and the physician-patient relationship: the importance of continuity for adult patients with asthma. *J Fam Pract* 2000;49(11):998–1004.

Lovis C, Mach F, Unger PF, Bouillie M, Chevrolet JC. Elevation of creatine kinase in acute severe asthma is not of cardiac origin. *Intensive Care Med* 2001;27(3):528–533.

Lowhagen O, Wever AM, Lusuardi M, Moscato G, De Backer WA, Gandola L, Donner CF, Ahlstedt S, Larsson L, Holgate ST. The inflammatory marker serum eosinophil cationic protein (ECP) compared with PEF as a tool to decide inhaled corticosteroid dose in asthmatic patients. *Respir Med* 2002;96(2):95–101.

Lozano P, Grothaus LC, Finkelstein JA, Hecht J, Farber HJ, Lieu TA. Variability in asthma care and services for low-income populations among practice sites in managed Medicaid systems. *Health Serv Res* 2003;38(6 Pt 1):1563–1578.

Lozano P, Finkelstein JA, Hecht J, Shulruff R, Weiss KB. Asthma medication use and disease burden in children in a primary care population. *Arch Pediatr Adolesc Med* 2003;157(1):81–88.

Lozano P, Finkelstein JA, Carey VJ, Wagner EH, Inui TS, Fuhlbrigge AL, Soumerai SB, Sullivan SD, Weiss ST, Weiss KB. A multisite randomized trial of the effects of physician education and organizational change in chronic-asthma care: health outcomes of the Pediatric Asthma Care Patient Outcomes Research Team II Study. *Arch Pediatr Adolesc Med* 2004;158(9):875–883.

Lu LR, Peat JK, Sullivan CE. Snoring in preschool children: prevalence and association with nocturnal cough and asthma. *Chest* 2003;124(2):587–593.

Lucas DO, Zimmer LO, Paul JE, Jones D, Slatko G, Liao W, Lashley J. Two-year results from the asthma self-management program: long-term impact on health care services, costs, functional status, and productivity. *J Asthma* 2001;38(4):321–330.

Luczynska C, Tredwell E, Smeeton N, Burney P. A randomized controlled trial of mite allergen-impermeable bed covers in adult mite-sensitized asthmatics. *Clin Exp Allergy* 2003;33(12):1648–1653.

Luder E, Melnik TA, DiMaio M. Association of being overweight with greater asthma symptoms in inner city black and Hispanic children. *J Pediatr* 1998;132(4):699–703.

Ludwig-Beymer P, Peterson S, Gorman C. Improving care for adults with asthma across the continuum. *J Nurs Care Qual* 1998;12(6):48–55.

Lukacs SL, France EK, Baron AE, Crane LA. Effectiveness of an asthma management program for pediatric members of a large health maintenance organization. *Arch Pediatr Adolesc Med* 2002;156(9):872–876.

Lumry W, Noveck R, Weinstein S, Barnhart F, VanderMeer A, Murray A, Reisner C. Switching from Ventolin CFC to Ventolin HFA is well tolerated and effective in patients with asthma. *Ann Allergy Asthma Immunol* 2001;86(3):297–303.

Lundborg CS, Wahlstrom R, Diwan VK, Oke T, Martenson D, Tomson G. Combining feedback from simulated cases and prescribing. Design and implementation of an educational intervention in primary care in Sweden. *Int J Technol Assess Health Care* 1999;15(3):458–472.

Lundborg CS, Wahlstrom R, Dall'Alba G. Ways of experiencing asthma management. Variations among general practitioners in Sweden. *Scand J Prim Health Care* 1999;17(4):226–231.

Luttinger D, Wilson L. A study of air pollutants and acute asthma exacerbations in urban areas: status report. *Environ Pollut* 2003;123(3):399–402.

Lwebuga-Mukasa J, Dunn-Georgiou E. A school-based asthma intervention program in the Buffalo, New York, schools. *J Sch Health* 2002;72(1):27–32.

Lwebuga-Mukasa JS, Wojcik R, Dunn-Georgiou E, Johnson C. Home environmental factors associated with asthma prevalence in two Buffalo inner-city neighborhoods. *J Health Care Poor Underserved* 2002;13(2):214–228.

Lwebuga-Mukasa JS, Oyana T, Thenappan A, Ayirookuzhi SJ. Association between traffic volume and health care use for asthma among residents at a U.S.-Canadian border crossing point. *J Asthma* 2004;41(3):289–304.

Lynd LD, Guh DP, Pare PD, Anis AH. Patterns of inhaled asthma medication use: a 3-year longitudinal analysis of prescription claims data from British Columbia, Canada. *Chest* 2002;122(6):1973–1981.

Lynd LD, Sandford AJ, Kelly EM, Pare PD, Bai TR, FitzGerald JM, Anis AH. Reconcilable differences: a cross-sectional study of the relationship between socioeconomic status and the magnitude of short-acting beta-agonist use in asthma. *Chest* 2004;126(4):1161–1168.

Maa SH, Sun MF, Hsu KH, Hung TJ, Chen HC, Yu CT, Wang CH, Lin HC. Effect of acupuncture or acupressure on quality of life of patients with chronic obstructive asthma: a pilot study. *J Altern Complement Med* 2003;9(5):659–670.

Macdcessi JS, Randell TL, Donaghue KC, Ambler GR, Van Asperen PP, Mellis CM. Adrenal crises in children treated with high-dose inhaled corticosteroids for asthma. *Med J Aust* 2003;178(5):214–216.

Madge P, McColl J, Paton J. Impact of a nurse-led home management training programme in children admitted to hospital with acute asthma: a randomised controlled study. *Thorax* 1997;52(3):223–228.

Maestrelli P, Zanolla L, Puccinelli P, Pozzan M, Fabbri LM. Low domestic exposure to house dust mite allergens (Der p 1) is associated with a reduced non-specific bronchial hyper-responsiveness in mite-sensitized asthmatic subjects under optimal drug treatment. *Clin Exp Allergy* 2001;31(5):715–721.

Maestrelli P, Zanolla L, Pozzan M, Fabbri LM. Effect of specific immunotherapy added to pharmacologic treatment and allergen avoidance in asthmatic patients allergic to house dust mite. *J Allergy Clin Immunol* 2004;113(4):643–649.

Magadle R, Berar-Yanay N, Weiner P. Long-acting bronchodilators in premenstrual exacerbation of asthma. *Respir Med* 2001;95(9):740–743.

Magadle R, Berar-Yanay N, Weiner P. The risk of hospitalization and near-fatal and fatal asthma in relation to the perception of dyspnea. *Chest* 2002;121(2):329–333.

Magar Y, Vervloet D, Steenhouwer F, Smaga S, Mechini H, Rocca Serra JP, Marchand C, d'Ivernois JF. Assessment of a therapeutic education programme for asthma patients: "un souffle nouveau." *Patient Educ Couns* 2005;58(1):41–46.

Magid DJ, Houry D, Ellis J, Lyons E, Rumsfeld JS. Health-related quality of life predicts emergency department utilization for patients with asthma. *Ann Emerg Med* 2004;43(5):551–557.

Magzamen S, Mortimer KM, Davis A, Tager IB. School-based asthma surveillance: a comparison of student and parental report. *Pediatr Allergy Immunol* 2005;16(8):669–678.

Mahabir D, Pooran S, Motilal H, Ishmael M, Hinds N, Gulliford MC. Acute severe asthma in Trinidad and Tobago. *Int J Tuberc Lung Dis* 1999;3(3):198–201.

Mahadevan M, Jin A, Manning P, Lim TK. Emergency department asthma: compliance with an evidence-based management algorithm. *Ann Acad Med Singapore* 2002;31(4):419–424.

Mahajan P, Haritos D, Rosenberg N, Thomas R. Comparison of nebulized magnesium sulfate plus albuterol to nebulized albuterol plus saline in children with acute exacerbations of mild to moderate asthma. *J Emerg Med* 2004;27(1):21–25.

Mahut B, Delacourt C, Zerah-Lancner F, de Blic J, Harf A, Delclaux C. Increase in alveolar nitric oxide in the presence of symptoms in childhood asthma. *Chest* 2004;125(3):1012–1018.

Maier WC, Arrighi HM, Morray B, Llewellyn C, Redding GJ. Indoor risk factors for asthma and wheezing among Seattle school children. *Environ Health Perspect* 1997;105(2):208–214.

Makinen S, Suominen T, Lauri S. What asthma patients know about their illness and its treatment. *Clin Nurse Spec* 1999;13(6):277–282.

Male I, Richter H, Seddon P. Children's perception of breathlessness in acute asthma. *Arch Dis Child* 2000;83(4):325–329.

Malmberg LP, Pelkonen AS, Haahtela T, Turpeinen M. Exhaled nitric oxide rather than lung function distinguishes preschool children with probable asthma. *Thorax* 2003;58(6):494–499.

Malmberg LP, Turpeinen H, Rytila P, Sarna S, Haahtela T. Determinants of increased exhaled nitric oxide in patients with suspected asthma. *Allergy* 2005;60(4):464–468.

Malmstrom K, Rodriguez-Gomez G, Guerra J, Villaran C, Pineiro A, Wei LX, Seidenberg BC, Reiss TF. Oral montelukast, inhaled beclomethasone, and placebo for chronic asthma. A randomized, controlled trial. Montelukast/Becломethasone Study Group. *Ann Intern Med* 1999;130(6):487–495.

Malmstrom K, Korhonen K, Kaila M, Dunder T, Nermes M, Klaukka T, Sarna S, Juntunen-Backman K. Acute childhood asthma in Finland: a retrospective review of hospital admissions from 1976 to 1995. *Pediatr Allergy Immunol* 2000;11(4):236–240.

Malmstrom K, Kaila M, Korhonen K, Dunder T, Nermes M, Klaukka T, Sarna S, Juntunen-Backman K. Mechanical ventilation in children with severe asthma. *Pediatr Pulmonol* 2001;31(6):405–411.

Malmstrom M, Ahlnér J, Carlsson C, Schmekel B. No effect of chinese acupuncture on isocapnic hyperventilation with cold air in asthmatics, measured with impulse oscillometry. *Acupunct Med* 2002;20(2–3):66–73.

Mancinelli L, Navarro L, Sharma OP. Intramuscular high-dose triamcinolone acetonide in the treatment of severe chronic asthma. *West J Med* 1997;167(5):322–329.

Mancuso CA, Peterson MG, Charlson ME. Comparing discriminative validity between a disease-specific and a general health scale in patients with moderate asthma. *J Clin Epidemiol* 2001;54(3):263–274.

Mancuso CA, Peterson MG. Different methods to assess quality of life from multiple follow-ups in a longitudinal asthma study. *J Clin Epidemiol* 2004;57(1):45–54.

Mandelberg A, Chen E, Noviski N, Priel IE. Nebulized wet aerosol treatment in emergency department—is it essential? Comparison with large spacer device for metered-dose inhaler. *Chest* 1997;112(6):1501–1505.

Mandelberg A, Tsehori S, Houri S, Gilad E, Morag B, Priel IE. Is nebulized aerosol treatment necessary in the pediatric emergency department? *Chest* 2000;117(5):1309–1313.

Mangat HS, D'Souza GA, Jacob MS. Nebulized magnesium sulphate versus nebulized salbutamol in acute bronchial asthma: a clinical trial. *Eur Respir J* 1998;12(2):341–344.

Manjra AI, Price J, Lenney W, Hughes S, Barnacle H. Efficacy of nebulized fluticasone propionate compared with oral prednisolone in children with an acute exacerbation of asthma. *Respir Med* 2000;94(12):1206–1214.

Mann M, Chowdhury B, Sullivan E, Nicklas R, Anthracite R, Meyer RJ. Serious asthma exacerbations in asthmatics treated with high-dose formoterol. *Chest* 2003;124(1):70–74.

Mannino DM, Moorman JE, Kingsley B, Rose D, Repace J. Health effects related to environmental tobacco smoke exposure in children in the United States: data from the Third National Health and Nutrition Examination Survey. *Arch Pediatr Adolesc Med* 2001;155(1):36–41.

Mannino DM, Homa DM, Redd SC. Involuntary smoking and asthma severity in children: data from the Third National Health and Nutrition Examination Survey. *Chest* 2002;122(2):409–415.

Mannix ET, Manfredi F, Farber MO. A comparison of two challenge tests for identifying exercise-induced bronchospasm in figure skaters. *Chest* 1999;115(3):649–653.

Manocha R, Marks GB, Kenchington P, Peters D, Salome CM. Sahaja yoga in the management of moderate to severe asthma: a randomised controlled trial. *Thorax* 2002;57(2):110–115.

Manser R, Reid D, Abramson M. Corticosteroids for acute severe asthma in hospitalised patients. *Cochrane Database Syst Rev* 2000;(2):CD001740.

Manser R, Reid D, Abramson M. Corticosteroids for acute severe asthma in hospitalised patients. *Cochrane Database Syst Rev* 2001;(1):CD001740.

Mansmann HC Jr, Abboud EM, McGeady SJ. Treatment of severe respiratory failure during status asthmaticus in children and adolescents using high flow oxygen and sodium bicarbonate. *Ann Allergy Asthma Immunol* 1997;78(1):69–73.

Mansour ME, Lanphear BP, DeWitt TG. Barriers to asthma care in urban children: parent perspectives. *Pediatrics* 2000;106(3):512–519.

Mantzouranis EC. User friendliness aspects of home care telematics. *Methods Inf Med* 2002;41(5):370–375.

Marabini A, Brugnami G, Curradi F, Casciola G, Stopponi R, Pettinari L, Siracusa A. Short-term effectiveness of an asthma educational program: results of a randomized controlled trial. *Respir Med* 2002;96(12):993–998.

Marchetti F, Bonati M, Marfisi RM, La Gamba G, Biasini GC, Tognoni G. Parental and primary care physicians' views on the management of chronic diseases: a study in Italy. The Italian Collaborative Group on Paediatric Chronic Diseases. *Acta Paediatr* 1995;84(10):1165–1172.

Marchie TT. Guinea worm cause of adult onset asthmatic attack, a radiological diagnosis. *West Afr J Med* 1999;18(3):214–216.

Marik PE, Varon J, Fromm R Jr. The management of acute severe asthma. *J Emerg Med* 2002;23(3):257–268.

Markoff BA, MacMillan JF Jr, Kumra V. Discharge of the asthmatic patient. *Clin Rev Allergy Immunol* 2001;20(3):341–355.

Marks GB, Heslop W, Yates DH. Prehospital management of exacerbations of asthma: relation to patient and disease characteristics. *Respirology* 2000;5(1):45–50.

Marks GB, Jalaludin BB, Williamson M, Atkin NL, Bauman A. Use of "preventer" medications and written asthma management plans among adults with asthma in New South Wales. NSW Health Department Asthma Data Working Group. *Med J Aust* 2000;173(8):407–410.

Marks GB, Zhou J, Yang HS, Joshi PA, Bishop GA, Britton WJ. Cord blood mononuclear cell cytokine responses in relation to maternal house dust mite allergen exposure. *Clin Exp Allergy* 2002;32(3):355–360.

Marks MK, Lovejoy FH Jr, Rutherford PA, Baskin MN. Impact of a short stay unit on asthma patients admitted to a tertiary pediatric hospital. *Qual Manag Health Care* 1997;6(1):14–22.

Marks MK, Hynson JL, Karabatsos G. Asthma: communication between hospital and general practitioners. *J Paediatr Child Health* 1999;35(3):251–254.

Marogna M, Massolo A. Sublingual immunotherapy in the context of a clinical practice improvement program in the allergological setting: results of a long-term observational study. *Allerg Immunol (Paris)* 2003;35(4):133–140.

Marosi A, Stiesmeyer J. Improving pediatric asthma patient outcomes by incorporation of effective interventions. *J Asthma* 2001;38(8):681–690.

Marotta A, Klinnert MD, Price MR, Larsen GL, Liu AH. Impulse oscillometry provides an effective measure of lung dysfunction in 4-year-old children at risk for persistent asthma. *J Allergy Clin Immunol* 2003;112(2):317–322.

Marouf R, Khadadah ME, Onadeko BO, Mustafa HT, Khamis A, Ezeamuzie CE, Sugathan TN. The effect of corticosteroid therapy on blood eosinophils and eosinophilic cationic protein in patients with acute and chronic asthma. *J Asthma* 1999;36(7):555–564.

Martignon G, Oryszczyn MP, Annesi-Maesano I. Does childhood immunization against infectious diseases protect from the development of atopic disease? *Pediatr Allergy Immunol* 2005;16(3):193–200.

Martin-Garcia C, Hinojosa M, Berges P, Camacho E, Garcia-Rodriguez R, Alfaya T, Iscar A. Safety of a cyclooxygenase-2 inhibitor in patients with aspirin-sensitive asthma. *Chest* 2002;121(6):1812–1817.

Martin J, Donaldson AN, Villarroel R, Parmar MK, Ernst E, Higginson IJ. Efficacy of acupuncture in asthma: systematic review and meta-analysis of published data from 11 randomised controlled trials. *Eur Respir J* 2002;20(4):846–852.

Martin RJ, Kraft M, Chu HW, Berns EA, Cassell GH. A link between chronic asthma and chronic infection. *J Allergy Clin Immunol* 2001;107(4):595–601.

Martin RJ, Szeffler SJ, Chinchilli VM, Kraft M, Dolovich M, Boushey HA, Cherniack RM, Craig TJ, Drazen JM, Fagan JK, et al. Systemic effect comparisons of six inhaled corticosteroid preparations. *Am J Respir Crit Care Med* 2002;165(10):1377–1383.

Martin RM, Shakir S. Age- and gender-specific asthma death rates in patients taking long-acting beta<sub>2</sub>-agonists: prescription event monitoring pharmacosurveillance studies. *Drug Saf* 2001;24(6):475–481.

Martindale S, McNeill G, Devereux G, Campbell D, Russell G, Seaton A. Antioxidant intake in pregnancy in relation to wheeze and eczema in the first two years of life. *Am J Respir Crit Care Med* 2005;171(2):121–128. Epub November 2004.

Martinez-Moragon E, Plaza V, Serrano J, Picado C, Galdiz JB, Lopez-Vina A, Sanchis J. Near-fatal asthma related to menstruation. *J Allergy Clin Immunol* 2004;113(2):242–244.

Martinez FD, Stern DA, Wright AL, Taussig LM, Halonen M. Differential immune responses to acute lower respiratory illness in early life and subsequent development of persistent wheezing and asthma. *J Allergy Clin Immunol* 1998;102(6 Pt 1):915–920.

Masjedi MR, Jamaati HR, Dokouhaki P, Ahmadzadeh Z, Taheri SA, Bigdeli M, Izadi S, Rostamian A, Aagin K, Ghavam SM. The effects of air pollution on acute respiratory conditions. *Respirology* 2003;8(2):213–230.

Maslennikova GY, Morosova ME, Salman NV, Kulikov SM, Oganov RG. Asthma education programme in Russia: educating patients. *Patient Educ Couns* 1998;33(2):113–127.

Maslow AD, Regan MM, Israel E, Darvish A, Mehrez M, Boughton R, Loring SH. Inhaled albuterol, but not intravenous lidocaine, protects against intubation-induced bronchoconstriction in asthma. *Anesthesiology* 2000;93(5):1198–1204.

Masoli M, Weatherall M, Holt S, Beasley R. Budesonide once versus twice-daily administration: meta-analysis. *Respirology* 2004;9(4):528–534.

Masoli M, Holt S, Weatherall M, Beasley R. Dose-response relationship of inhaled budesonide in adult asthma: a meta-analysis. *Eur Respir J* 2004;23(4):552–558.

Masoli M, Weatherall M, Holt S, Beasley R. Systematic review of the dose-response relation of inhaled fluticasone propionate. *Arch Dis Child* 2004;89(10):902–907.

Masoli M, Weatherall M, Holt S, Beasley R. Moderate dose inhaled corticosteroids plus salmeterol versus higher doses of inhaled corticosteroids in symptomatic asthma. *Thorax* 2005;60(9):730–734.

Maspero JF, Duenas-Meza E, Volovitz B, Pinacho DC, Kosa L, Vrijens F, Leff JA. Oral montelukast versus inhaled beclomethasone in 6- to 11-year-old children with asthma: results of an open-label extension study evaluating long-term safety, satisfaction, and adherence with therapy. *Curr Med Res Opin* 2001;17(2):96–104.

Massie J, Efron D, Cerritelli B, South M, Powell C, Haby MM, Gilbert E, Vidmar S, Carlin J, Robertson CF. Implementation of evidence based guidelines for paediatric asthma management in a teaching hospital. *Arch Dis Child* 2004;89(7):660–664.

Mastalerz L, Gawlewicz-Mroczka A, Nizankowska E, Cmiel A, Szczeklik A. Protection against exercise-induced bronchoconstriction by montelukast in aspirin-sensitive and aspirin-tolerant patients with asthma. *Clin Exp Allergy* 2002;32(9):1360–1365.

Mastalerz L, Setkowicz M, Sanak M, Szczeklik A. Hypersensitivity to aspirin: common eicosanoid alterations in urticaria and asthma. *J Allergy Clin Immunol* 2004;113(4):771–775.

Masters G, Hall SE, Phillips M, Boldy D. Outcomes measurement for asthma following acute presentation to an emergency department. *Aust Health Rev* 2001;24(3):53–60.

- Matheson M, Wicking J, Raven J, Woods R, Thien F, Abramson M, Walters EH. Asthma management: how effective is it in the community? *Intern Med J* 2002;32(9–10):451–456.
- Mathison DA, Koziol JA. Marginal utility of montelukast for persistent asthma. *Chest* 2002;121(2):334–337.
- Mathur R, Clark RA, Dhillon DP, Winter JH, Lipworth BJ. Reaudit of acute asthma admissions using a severity marker stamp and determinants of an outcome measure. *Scott Med J* 1997;42(2):49–52.
- Mathur R, Clark RA, Dhillon DP, Winter JH, Lipworth BJ. A repeat audit of hospital discharge letters in patients admitted with acute asthma. *Scott Med J* 1997;42(1):19–21.
- Matsui EC, Wood RA, Rand C, Kanchanaraksa S, Swartz L, Curtin-Brosnan J, Eggleston PA. Cockroach allergen exposure and sensitization in suburban middle-class children with asthma. *J Allergy Clin Immunol* 2003;112(1):87–92.
- Matsui EC, Simons E, Rand C, Butz A, Buckley TJ, Breysse P, Eggleston PA. Airborne mouse allergen in the homes of inner-city children with asthma. *J Allergy Clin Immunol* 2005;115(2):358–363.
- Matsuo N, Shimoda T, Matsuse H, Kohno S. A case of menstruation-associated asthma: treatment with oral contraceptives. *Chest* 1999;116(1):252–253.
- Mattes J, Karmaus W, Storm Van's GK, Moseler M, Forster J, Kuehr J. Pulmonary function in children of school age is related to the number of siblings in their family. *Pediatr Pulmonol* 1999;28(6):414–417.
- Mattheyse FJ, van Heerden K, Mattheyse M, Williams Z, Bouic P, van Schalkwyk EM, Bardin PG. Reduced activation of peripheral blood neutrophils after late-phase asthmatic responses but not in mild stable asthma. *Respiration* 2001;68(5):471–479.
- Matz J, Emmett A, Rickard K, Kalberg C. Addition of salmeterol to low-dose fluticasone versus higher-dose fluticasone: an analysis of asthma exacerbations. *J Allergy Clin Immunol* 2001;107(5):783–789.
- Mazur LJ, de Ybarrodo L, Miller J, Colasurdo G. Use of alternative and complementary therapies for pediatric asthma. *Tex Med* 2001;97(6):64–68.
- McCarney RW, Linde K, Lasserson TJ. Homeopathy for chronic asthma. *Cochrane Database Syst Rev* 2004;(1):CD000353.
- McCarney RW, Brinkhaus B, Lasserson TJ, Linde K. Acupuncture for chronic asthma. *Cochrane Database Syst Rev* 2004;(1):CD000008.
- McCarney RW, Lasserson TJ, Linde K, Brinkhaus B. An overview of two Cochrane systematic reviews of complementary treatments for chronic asthma: acupuncture and homeopathy. *Respir Med* 2004;98(8):687–696.

McCarren M, McDermott MF, Zalenski RJ, Jovanovic B, Marder D, Murphy DG, Kampe LM, Misiewicz VM, Rydman RJ. Prediction of relapse within eight weeks after an acute asthma exacerbation in adults. *J Clin Epidemiol* 1998;51(2):107–118.

McCarren M, Zalenski RJ, McDermott M, Kaur K. Predicting recovery from acute asthma in an emergency diagnostic and treatment unit. *Acad Emerg Med* 2000;7(1):28–35.

McCarthy MJ, Herbert R, Brimacombe M, Hansen J, Wong D, Zelman M. Empowering parents through asthma education. *Pediatr Nurs* 2002;28(5):465–473.

McConnell R, Berhane K, Gilliland F, London SJ, Islam T, Gauderman WJ, Avol E, Margolis HG, Peters JM. Asthma in exercising children exposed to ozone: a cohort study. *Lancet* 2002;359(9304):386–391.

McConnell R, Berhane K, Gilliland F, Islam T, Gauderman WJ, London SJ, Avol E, Rappaport EB, Margolis HG, Peters JM. Indoor risk factors for asthma in a prospective study of adolescents. *Epidemiology* 2002;13(3):288–295.

McConnell R, Jones C, Milam J, Gonzalez P, Berhane K, Clement L, Richardson J, Hanley-Lopez J, Kwong K, Maalouf N, et al. Cockroach counts and house dust allergen concentrations after professional cockroach control and cleaning. *Ann Allergy Asthma Immunol* 2003;91(6):546–552.

McConnell R, Milam J, Richardson J, Galvan J, Jones C, Thorne PS, Berhane K. Educational intervention to control cockroach allergen exposure in the homes of hispanic children in Los Angeles: results of the La Casa study. *Clin Exp Allergy* 2005;35(4):426–433.

McConnochie KM, Russo MJ, McBride JT, Szilagyi PG, Brooks AM, Roghmann KJ. Socioeconomic variation in asthma hospitalization: excess utilization or greater need? *Pediatrics* 1999;103(6):e75.

McCowan C, Neville RG, Ricketts IW, Warner FC, Hoskins G, Thomas GE. Lessons from a randomized controlled trial designed to evaluate computer decision support software to improve the management of asthma. *Med Inform Internet Med* 2001;26(3):191–201.

McDermott MF, Murphy DG, Zalenski RJ, Rydman RJ, McCarren M, Marder D, Jovanovic B, Kaur K, Roberts RR, Isola M, et al. A comparison between emergency diagnostic and treatment unit and inpatient care in the management of acute asthma. *Arch Intern Med* 1997;157(18):2055–2062.

McDermott MF, Nasr I, Rydman RJ, Cordero M, Kampe LM, Lewis R, Portman L, Wajda J, Macuga M, Buckley R. Comparison of two regimens of beta-adrenergics in acute asthma. *J Med Syst* 1999;23(4):269–279.

McDonald V, Toneguzzi R, Pratt P, Kessell C, Hazell J, Gibson P. The characteristics of asthma education programs within New South Wales. *J Qual Clin Pract* 1999;19(2):117–121.

McDonnell WF, Abbey DE, Nishino N, Lebowitz MD. Long-term ambient ozone concentration and the incidence of asthma in nonsmoking adults: the AHSMOG Study. *Environ Res* 1999;80(2 Pt 1):110–121.

McFadden ER Jr, elSanadi N, Strauss L, Galan G, Dixon L, McFadden CB, Shoemaker L, Gilbert L, Warren E, Hammonds T. The influence of parasympatholytics on the resolution of acute attacks of asthma. *Am J Med* 1997;102(1):7–13.

McFadden ER Jr, Strauss L, Hejal R, Galan G, Dixon L. Comparison of two dosage regimens of albuterol in acute asthma. *Am J Med* 1998;105(1):12–17.

McIvor RA, Pizzichini E, Turner MO, Hussack P, Hargreave FE, Sears MR. Potential masking effects of salmeterol on airway inflammation in asthma. *Am J Respir Crit Care Med* 1998;158(3):924–930.

McKenzie DC, Stewart IB, Fitch KD. The asthmatic athlete, inhaled beta agonists, and performance. *Clin J Sport Med* 2002;12(4):225–228.

McLean W, Gillis J, Waller R. The BC Community Pharmacy Asthma Study: A study of clinical, economic and holistic outcomes influenced by an asthma care protocol provided by specially trained community pharmacists in British Columbia. *Can Respir J* 2003;10(4):195–202.

McLeod SJ, Pearce MJ, Rigby SA, Begg EJ, Beard ME, Martin IR, Drennan CJ, Town GI. Asthma management at Christchurch Hospital: compliance with guidelines. *N Z Med J* 1996;109(1019):115–118.

McMullen AH, Yoos HL, Kitzman H. Peak flow meters in childhood asthma: parent report of use and perceived usefulness. *J Pediatr Health Care* 2002;16(2):67–72.

McNally AJ, Frampton C, Garrett J, Pattemore P. Application of asthma action plans to childhood asthma: national survey repeated. *N Z Med J* 2004;117(1196):U932.

McQuaid EL, Spieth LE, Spirito A. The pediatric psychologist's role in differential diagnosis: vocal-cord dysfunction presenting as asthma. *J Pediatr Psychol* 1997;22(5):739–748.

Medici TC, Grebski E, Wu J, Hinz G, Wuthrich B. Acupuncture and bronchial asthma: a long-term randomized study of the effects of real versus sham acupuncture compared to controls in patients with bronchial asthma. *J Altern Complement Med* 2002;8(6):737–750.

Medina-Ramon M, Zock JP, Kogevinas M, Sunyer J, Anto JM. Asthma symptoms in women employed in domestic cleaning: a community based study. *Thorax* 2003;58(11):950–954.

Medina-Ramon M, Zock JP, Kogevinas M, Sunyer J, Torralba Y, Borrell A, Burgos F, Anto JM. Asthma, chronic bronchitis, and exposure to irritant agents in occupational domestic cleaning: a nested case-control study. *Occup Environ Med* 2005;62(9):598–606.

MeGhan SL, Wong E, Jhangri GS, Wells HM, Michaelchuk DR, Boechler VL, Befus AD, Hessel PA. Evaluation of an education program for elementary school children with asthma. *J Asthma* 2003;40(5):523–533.

Mehta SV, Parkin PC, Stephens D, Keogh KA, Schuh S. Oxygen saturation as a predictor of prolonged, frequent bronchodilator therapy in children with acute asthma. *J Pediatr* 2004;145(5):641–645.

Meijer RJ, Postma DS, Kauffman HF, Arends LR, Koeter GH, Kerstjens HA. Accuracy of eosinophils and eosinophil cationic protein to predict steroid improvement in asthma. *Clin Exp Allergy* 2002;32(7):1096–1103.

Melani AS, Zanchetta D, Barbato N, Sestini P, Cinti C, Canessa PA, Aiolfi S, Neri M. Inhalation technique and variables associated with misuse of conventional metered-dose inhalers and newer dry powder inhalers in experienced adults. *Ann Allergy Asthma Immunol* 2004;93(5):439–446.

Melen E, Wickman M, Nordvall SL, Hage-Hamsten M, Lindfors A. Influence of early and current environmental exposure factors on sensitization and outcome of asthma in pre-school children. *Allergy* 2001;56(7):646–652.

Mellan M, Leflein J, Walton-Bowen K, Cruz-Rivera M, Fitzpatrick S, Smith JA. Comparable efficacy of administration with face mask or mouthpiece of nebulized budesonide inhalation suspension for infants and young children with persistent asthma. *Am J Respir Crit Care Med* 2000;162(2 Pt 1):593–598.

Melo RE, Sole D, Naspritz CK. Exercise-induced bronchoconstriction in children: montelukast attenuates the immediate-phase and late-phase responses. *J Allergy Clin Immunol* 2003;111(2):301–307.

Meloni F, Paschetto E, Mangiarotti P, Crepaldi M, Morosini M, Bulgheroni A, Fietta A. Acute Chlamydia pneumoniae and Mycoplasma pneumoniae infections in community-acquired pneumonia and exacerbations of COPD or asthma: therapeutic considerations. *J Chemother* 2004;16(1):70–76.

Meltzer EO, Lockey RF, Friedman BF, Kalberg C, Goode-Sellers S, Srebro S, Edwards L, Rickard K. Efficacy and safety of low-dose fluticasone propionate compared with montelukast for maintenance treatment of persistent asthma. *Mayo Clin Proc* 2002;77(5):437–445.

Mendell MJ, Naco GM, Wilcox TG, Sieber WK. Environmental risk factors and work-related lower respiratory symptoms in 80 office buildings: an exploratory analysis of NIOSH data. *Am J Ind Med* 2003;43(6):630–641.

Mendenhall AB, Tsien AY. Evaluation of physician and patient compliance with the use of peak flow meters in commercial insurance and Oregon health plan asthmatic populations. *Ann Allergy Asthma Immunol* 2000;84(5):523–527.

Meng A, McConnell S. Asthma education: special applications for the school-age child. *Nurs Clin North Am* 2003;38(4):653–664.

Mens-Verhulst J, Radtke HL, Spence CD. The private struggle of mothers with asthma: a gender perspective on illness management. *Patient Educ Couns* 2004;54(1):79–86.

Merkus PJ, van Pelt W, Van Houwelingen JC, Essen-Zandvliet LE, Duiverman EJ, Kerrebijn KF, Quanjer PH. Inhaled corticosteroids and growth of airway function in asthmatic children. *Eur Respir J* 2004;23(6):861–868.

Mesters I, Meertens RM. Monitoring the dissemination of an educational protocol on pediatric asthma in family practice: a test of associations between dissemination variables. *Health Educ Behav* 1999;26(1):103–120.

Meurer JR, McKenzie S, Mischler E, Subichin S, Malloy M, George V. The awesome Asthma School Days Program: educating children, inspiring a community. *J Sch Health* 1999;69(2):63–68.

Meyer IH, Sternfels P, Fagan JK, Copeland L, Ford JG. Characteristics and correlates of asthma knowledge among emergency department users in Harlem. *J Asthma* 2001;38(7):531–539.

Meyer KA, Arduino JM, Santanello NC, Knorr BA, Bisgaard H. Response to montelukast among subgroups of children aged 2 to 14 years with asthma. *J Allergy Clin Immunol* 2003;111(4):757–762.

Meyts I, Proesmans M, De Boeck K. Exhaled nitric oxide corresponds with office evaluation of asthma control. *Pediatr Pulmonol* 2003;36(4):283–289.

Michael AB, Murphy D. Montelukast-associated Churg-Strauss syndrome. *Age Ageing* 2003;32(5):551–552.

Michelson PH, Dailey L, Devlin RB, Peden DB. Ozone effects on the immediate-phase response to allergen in the nasal airways of allergic asthmatic subjects. *Otolaryngol Head Neck Surg* 1999;120(2):225–232.

Mihrshahi S, Peat JK, Marks GB, Mellis CM, Tovey ER, Webb K, Britton WJ, Leeder SR; Childhood Asthma Prevention Study. Eighteen-month outcomes of house dust mite avoidance and dietary fatty acid modification in the Childhood Asthma Prevention Study (CAPS). *J Allergy Clin Immunol* 2003;111(1):162–168. Erratum in: *J Allergy Clin Immunol* 2003; 111(4):735.

Mihrshahi S, Peat JK, Webb K, Oddy W, Marks GB, Mellis CM; CAPS Team. Effect of omega-3 fatty acid concentrations in plasma on symptoms of asthma at 18 months of age. *Pediatr Allergy Immunol* 2004;15(6):517–522.

Miles JF, Garden GM, Tunnicliffe WS, Cayton RM, Ayres JG. Psychological morbidity and coping skills in patients with brittle and non-brittle asthma: a case-control study. *Clin Exp Allergy* 1997;27(10):1151–1159.

Milgrom H, Fick RB Jr, Su JQ, Reimann JD, Bush RK, Watrous ML, Metzger WJ. Treatment of allergic asthma with monoclonal anti-IgE antibody. rhuMAb-E25 Study Group. *N Engl J Med* 1999;341(26):1966–1973.

Milgrom H, Berger W, Nayak A, Gupta N, Pollard S, McAlary M, Taylor AF, Rohane P. Treatment of childhood asthma with anti-immunoglobulin E antibody (omalizumab). *Pediatrics* 2001;108(2):E36.

Milgrom H, Skoner DP, Bensch G, Kim KT, Claus R, Baumgartner RA. Low-dose levalbuterol in children with asthma: safety and efficacy in comparison with placebo and racemic albuterol. *J Allergy Clin Immunol* 2001;108(6):938–945.

Milks CJ, Oppenheimer JJ, Bielory L. Comparison of emergency room asthma care to National Guidelines. *Ann Allergy Asthma Immunol* 1999;83(3):208–211.

Millard MW, Johnson PT, McEwen M, Neatherlin J, Lawrence G, Kennerly DK, Bokovoy JL. A randomized controlled trial using the school for anti-inflammatory therapy in asthma. *J Asthma* 2003;40(7):769–776.

Miller DW, Slovis CM. Hypophosphatemia in the emergency department therapeutics. *Am J Emerg Med* 2000;18(4):457–461.

Miller K, Ward-Smith P, Cox K, Jones EM, Portnoy JM. Development of an asthma disease management program in a children's hospital. *Curr Allergy Asthma Rep* 2003;3(6):491–500.

Miller MK, Johnson C, Miller DP, Deniz Y, Bleeker ER, Wenzel SE. Severity assessment in asthma: An evolving concept. *J Allergy Clin Immunol* 2005;116(5):990–995.

Miller TP, Barbers RG. Management of the severe asthmatic. *Curr Opin Pulm Med* 1999;5(1):58–62.

Mills GD, Lindeman JA, Fawcett JP, Herbison GP, Sears MR. Chlamydia pneumoniae serological status is not associated with asthma in children or young adults. *Int J Epidemiol* 2000;29(2):280–284.

Milnes LJ, Callery P. The adaptation of written self-management plans for children with asthma. *J Adv Nurs* 2003;41(5):444–453.

Minai BA, Martin JE, Cohn RC. Results of a physician and respiratory therapist collaborative effort to improve long-term metered-dose inhaler technique in a pediatric asthma clinic. *Respir Care* 2004;49(6):600–605.

Mintz M. Asthma update: Part II. Medical management. *Am Fam Physician* 2004;70(6):1061–1066.

Miralles JC, Negro JM, Alonso JM, Garcia M, Sanchez-Gascon F, Soriano J. Occupational rhinitis and bronchial asthma due to TBTU and HBTU sensitization. *J Investig Allergol Clin Immunol* 2003;13(2):133–134.

Mircetic RN, Dodig S, Raos M, Petres B, Cepelak I. Magnesium concentration in plasma, leukocytes and urine of children with intermittent asthma. *Clin Chim Acta* 2001;312(1–2):197–203.

Mita H, Endoh S, Kudoh M, Kawagishi Y, Kobayashi M, Taniguchi M, Akiyama K. Possible involvement of mast-cell activation in aspirin provocation of aspirin-induced asthma. *Allergy* 2001;56(11):1061–1067.

Mitchell EA, Stewart AW. The ecological relationship of tobacco smoking to the prevalence of symptoms of asthma and other atopic diseases in children: the International Study of Asthma and Allergies in Childhood (ISAAC). *Eur J Epidemiol* 2001;17(7):667–673.

Mitra A, Bassler D, Ducharme FM. Intravenous aminophylline for acute severe asthma in children over 2 years using inhaled bronchodilators. *Cochrane Database Syst Rev* 2001;(4):CD001276.

Mitra A. The current role of intravenous aminophylline in acute paediatric asthma. *Minerva Pediatr* 2003;55(4):369–375.

Mitra A, Bassler D, Goodman K, Lasserson TJ, Ducharme FM. Intravenous aminophylline for acute severe asthma in children over two years receiving inhaled bronchodilators. *Cochrane Database Syst Rev* 2005;(2):CD001276.

Mitra AD, Ogston S, Crighton A, Mukhopadhyay S. Lung function and asthma symptoms in children: relationships and response to treatment. *Acta Paediatr* 2002;91(7):789–792.

Mitsunobu F, Ashida K, Hosaki Y, Tsugeno H, Okamoto M, Nishida N, Nagata T, Takata S, Tanizaki Y. Decreased computed tomographic lung density during exacerbation of asthma. *Eur Respir J* 2003;22(1):106–112.

Mitsunobu F, Ashida K, Hosaki Y, Tsugeno H, Okamoto M, Nishida N, Nagata T, Tanizaki Y, Tanimoto M. Influence of long-term cigarette smoking on immunoglobulin E-mediated allergy, pulmonary function, and high-resolution computed tomography lung densitometry in elderly patients with asthma. *Clin Exp Allergy* 2004;34(1):59–64.

Miyagi T, Gushima Y, Matsumoto T, Okamoto K, Miike T. Prolonged isoflurane anesthesia in a case of catastrophic asthma. *Acta Paediatr Jpn* 1997;39(3):375–378.

Miyashita N, Kubota Y, Nakajima M, Niki Y, Kawane H, Matsushima T. Chlamydia pneumoniae and exacerbations of asthma in adults. *Ann Allergy Asthma Immunol* 1998;80(5):405–409.

Mochizuki H, Shigeta M, Arakawa H, Kato M, Tokuyama K, Morikawa A. Bronchial hyperresponsiveness before and after the diagnosis of bronchial asthma in children. *Pediatrics* 2000;106(6):1442–1446.

Moira CY, Ferguson A, Dimich-Ward H, Watson W, Manfreda J, Becker A. Effectiveness of and compliance to intervention measures in reducing house dust and cat allergen levels. *Ann Allergy Asthma Immunol* 2002;88(1):52–58.

Molimard M, Bourcereau J, Le G, V, Bourdeix I, Leynadier F, Duroux P. Comparison between formoterol 12 microg b.i.d. and on-demand salbutamol in moderate persistent asthma. *Respir Med* 2001;95(1):64–70.

Molimard M, Guenole E, Duvauchelle T, Vicaut E, Lefrancois G. A randomized, double-blind, double-dummy, safety crossover trial comparing cumulative doses up to 96 microg of formoterol delivered via an HFA-134a-propelled pMDI vs. same cumulative doses of formoterol DPI and placebo in asthmatic patients. *Respiration* 2005;72 Suppl 1:28–34.

Moller C, Dreborg S, Ferdousi HA, Halken S, Host A, Jacobsen L, Koivikko A, Koller DY, Niggemann B, Norberg LA, et al. Pollen immunotherapy reduces the development of asthma in children with seasonal rhinoconjunctivitis (the PAT-study). *J Allergy Clin Immunol* 2002;109(2):251–256.

Moloney E, O'Sullivan S, Hogan T, Poulter LW, Burke CM. Airway dehydration: a therapeutic target in asthma? *Chest* 2002;121(6):1806–1811.

Monroe KW, Nichols MH, King WD, Tucker K, Tomlinson R. Comparison of two forms of albuterol for treatment of acute bronchospasm in pediatric patients. *South Med J* 2003;96(5):440–444.

Monso E. Occupational asthma in greenhouse workers. *Curr Opin Pulm Med* 2004;10(2):147–150.

Montalto D, Bruzzese JM, Moskaleva G, Higgins-D'Alessandro A, Webber MP. Quality of life in young urban children: does asthma make a difference? *J Asthma* 2004;41(4):497–505.

Montealegre F, Fernandez B, Delgado A, Fernandez L, Roman A, Chardon D, Rodriguez-Santana J, Medina V, Zavala D, Bayona M. Exposure levels of asthmatic children to allergens, endotoxins, and serine proteases in a tropical environment. *J Asthma* 2004;41(4):485–496.

Moonie SA, Strunk RC, Crocker S, Curtis V, Schechtman K, Castro M. Community Asthma Program improves appropriate prescribing in moderate to severe asthma. *J Asthma* 2005;42(4):281–289.

Moosa SE, Henley LD. An evaluation of parental knowledge of childhood asthma in a family practice setting. *S Afr Med J* 1997;87(1):42–45.

Morgan WJ, Crain EF, Gruchalla RS, O'Connor GT, Kattan M, Evans R III, Stout J, Malindzak G, Smartt E, Plaut M, et al. Results of a home-based environmental intervention among urban children with asthma. *N Engl J Med* 2004;351(11):1068–1080.

Morice AH, Wrench C. The role of the asthma nurse in treatment compliance and self-management following hospital admission. *Respir Med* 2001;95(11):851–856.

Morkjaroenpong V, Rand CS, Butz AM, Huss K, Eggleston P, Malveaux FJ, Bartlett SJ. Environmental tobacco smoke exposure and nocturnal symptoms among inner-city children with asthma. *J Allergy Clin Immunol* 2002;110(1):147–153.

Moscato G, Pignatti P, Yacoub MR, Romano C, Spezia S, Perfetti L. Occupational asthma and occupational rhinitis in hairdressers. *Chest* 2005;128(5):3590–3598.

Moudgil H, Marshall T, Honeybourne D. Asthma education and quality of life in the community: a randomised controlled study to evaluate the impact on white European and Indian subcontinent ethnic groups from socioeconomically deprived areas in Birmingham, UK. *Thorax* 2000;55(3):177–183.

Moy JN, Grant EN, Turner-Roan K, Li T, Weiss KB. Asthma care practices, perceptions, and beliefs of Chicago-area asthma specialists. Chicago Asthma Surveillance Initiative Project Team. *Chest* 1999;116(4 Suppl 1):154S–162S.

Moy ML, Lantin ML, Harver A, Schwartzstein RM. Language of dyspnea in assessment of patients with acute asthma treated with nebulized albuterol. *Am J Respir Crit Care Med* 1998;158(3):749–753.

- Moy ML, Israel E, Weiss ST, Juniper EF, Dube L, Drazen JM. Clinical predictors of health-related quality of life depend on asthma severity. *Am J Respir Crit Care Med* 2001;163(4):924–929.
- Muller-Wening D, Neuhauss M. Protective effect of respiratory devices in farmers with occupational asthma. *Eur Respir J* 1998;12(3):569–572.
- Mulloy E, Donaghy D, Quigley C, McNicholas WT. A one-year prospective audit of an asthma education programme in an out-patient setting. *Ir Med J* 1996;89(6):226–228.
- Mungan D, Bavbek S, Peksari V, Celik G, Gugay E, Misirligil Z. Trichophyton sensitivity in allergic and nonallergic asthma. *Allergy* 2001;56(6):558–562.
- Muntner P, Sudre P, Uldry C, Rochat T, Courteheuse C, Naef AF, Perneger TV. Predictors of participation and attendance in a new asthma patient self-management education program. *Chest* 2001;120(3):778–784.
- Munzenberger PJ, Vinuya RZ. Impact of an asthma program on the quality of life of children in an urban setting. *Pharmacotherapy* 2002;22(8):1055–1062.
- Murdoch RD, Cowley H, Kelly J, Higgins R, Webber D. Cilomilast (Ariflo) does not potentiate the cardiovascular effects of inhaled salbutamol. *Pulm Pharmacol Ther* 2002;15(6):521–527.
- Murphy KR, Fitzpatrick S, Cruz-Rivera M, Miller CJ, Parasuraman B. Effects of budesonide inhalation suspension compared with cromolyn sodium nebulizer solution on health status and caregiver quality of life in childhood asthma. *Pediatrics* 2003;112(3 Pt 1):e212–e219.
- Murphy VE, Clifton VL, Gibson PG. Asthma exacerbations during pregnancy: incidence and association with adverse pregnancy outcomes. *Thorax* 2006;61(2):169–176.
- Murray DM, Lawler PG. All that wheezes is not asthma. Paradoxical vocal cord movement presenting as severe acute asthma requiring ventilatory support. *Anaesthesia* 1998;53(10):1006–1011.
- Murray MD, Stang P, Tierney WM. Health care use by inner-city patients with asthma. *J Clin Epidemiol* 1997;50(2):167–174.
- Mutlu GM, Moonjelly E, Chan L, Olopade CO. Laryngospasm and paradoxical bronchoconstriction after repeated doses of beta<sub>2</sub>-agonists containing edetate disodium. *Mayo Clin Proc* 2000;75(3):285–287.
- Mygind N. The common cold as a trigger of asthma. *Monaldi Arch Chest Dis* 2000;55(6):478–483.
- Myou S, Fujimura M, Kamio Y, Hirose T, Kita T, Tachibana H, Ishiura Y, Watanabe K, Hashimoto T, Nakao S. Bronchodilator effects of intravenous olprinone, a phosphodiesterase 3 inhibitor, with and without aminophylline in asthmatic patients. *Br J Clin Pharmacol* 2003;55(4):341–346.
- Najada A, Abu-Hasan M, Weinberger M. Outcome of asthma in children and adolescents at a specialty-based care program. *Ann Allergy Asthma Immunol* 2001;87(4):335–343.

Nakanishi AK, Lamb BM, Foster C, Rubin BK. Ultrasonic nebulization of albuterol is no more effective than jet nebulization for the treatment of acute asthma in children. *Chest* 1997;111(6):1505–1508.

Nakanishi AK, Klasner AK, Rubin BK. A randomized controlled trial of inhaled flunisolide in the management of acute asthma in children. *Chest* 2003;124(3):790–794.

Nakano Y, Enomoto N, Kawamoto A, Hirai R, Chida K. Efficacy of adding multiple doses of oxitropium bromide to salbutamol delivered by means of a metered-dose inhaler with a spacer device in adults with acute severe asthma. *J Allergy Clin Immunol* 2000;106(3):472–478.

Nakano Y, Morita S, Kawamoto A, Naito T, Enomoto N, Suda T, Chida K, Nakamura H. Efficacy of a consensus protocol therapy in adults with acute, severe asthma. *Ann Allergy Asthma Immunol* 2003;90(3):331–337.

Nakase H, Itani T, Mimura J, Kawasaki T, Komori H, Tomioka H, Chiba T. Relationship between asthma and gastro-oesophageal reflux: significance of endoscopic grade of reflux oesophagitis in adult asthmatics. *J Gastroenterol Hepatol* 1999;14(7):715–722.

Nana A, Youngchaiyud P, Charoenratanakul S, Boe J, Lofdahl CG, Selroos O, Stahl E. High-dose inhaled budesonide may substitute for oral therapy after an acute asthma attack. *J Asthma* 1998;35(8):647–655.

Nana A, Youngchaiyud P, Maranetra N, Boe J, Lofdahl CG, Selroos O, Stahl E. Beta<sub>2</sub>-agonists administered by a dry powder inhaler can be used in acute asthma. *Respir Med* 1998;92(2):167–172.

Nannini LJ Jr, Pendino JC, Corna RA, Mannarino S, Quispe R. Magnesium sulfate as a vehicle for nebulized salbutamol in acute asthma. *Am J Med* 2000;108(3):193–197.

Narhi U, Airaksinen M, Tanskanen P, Enlund H. The effects of a pharmacy-based intervention on the knowledge and attitudes of asthma patients. *Patient Educ Couns* 2001;43(2):171–177.

Narhi U, Airaksinen M, Enlund H. Do asthma patients receive sufficient information to monitor their disease—a nationwide survey in Finland. *Pharm World Sci* 2001;23(6):242–245.

Nascimento I, Nardi AE, Valenca AM, Lopes FL, Mezzasalma MA, Nascentes R, Zin WA. Psychiatric disorders in asthmatic outpatients. *Psychiatry Res* 2002;110(1):73–80.

Nates JL, Cooper DJ, Day B, Tuxen DV. Acute weakness syndromes in critically ill patients—a reappraisal. *Anaesth Intensive Care* 1997;25(5):502–513.

Nathan RA, Bernstein JA, Bielory L, Bonuccelli CM, Calhoun WJ, Galant SP, Hanby LA, Kemp JP, Kylstra JW, Nayak AS, et al. Zafirlukast improves asthma symptoms and quality of life in patients with moderate reversible airflow obstruction. *J Allergy Clin Immunol* 1998;102(6 Pt 1):935–942.

Nathan RA, Bleeker ER, Kalberg C. A comparison of short-term treatment with inhaled fluticasone propionate and zafirlukast for patients with persistent asthma. *Am J Med* 2001;111(3):195–202.

Nathan RA, Geddes D, Woodhead M. Management of influenza in patients with asthma or chronic obstructive pulmonary disease. *Ann Allergy Asthma Immunol* 2001;87(6):447–454, 487.

Nathan RA, Sorkness CA, Kosinski M, Schatz M, Li JT, Marcus P, Murray JJ, Pendergraft TB. Development of the asthma control test: a survey for assessing asthma control. *J Allergy Clin Immunol* 2004;113(1):59–65.

Nathell L. Effects on sick leave of an inpatient rehabilitation programme for asthmatics in a randomized trial. *Scand J Public Health* 2005;33(1):57–64.

Navaie-Waliser M, Misener M, Mersman C, Lincoln P. Evaluating the needs of children with asthma in home care: the vital role of nurses as caregivers and educators. *Public Health Nurs* 2004;21(4):306–315.

Nayak AS, Banov C, Corren J, Feinstein BK, Floreani A, Friedman BF, Goldsobel A, Gottschlich GM, Hannaway PJ, Lampl KL, et al. Once-daily mometasone furoate dry powder inhaler in the treatment of patients with persistent asthma. *Ann Allergy Asthma Immunol* 2000;84(4):417–424.

Negro Alvarez JM, Miralles Lopez JC, Felix Toledo R, Pagan Aleman JA, Garcia Selles FJ, Lopez Sanchez JD, Hernandez Garcia J. Pressurised metered-dose inhalers (MDIs) versus dry powder inhalers devices (DPIs) to rapid-acting inhaled  $\beta_2$ -agonists for asthma in children. *Allergol Immunopathol (Madr)* 2002;30(4):245–249.

Nelson HS, Szeffler SJ, Jacobs J, Huss K, Shapiro G, Sternberg AL. The relationships among environmental allergen sensitization, allergen exposure, pulmonary function, and bronchial hyperresponsiveness in the Childhood Asthma Management Program. *J Allergy Clin Immunol* 1999;104(4 Pt 1):775–785.

Nelson HS, Busse WW, Kerwin E, Church N, Emmett A, Rickard K, Knobil K. Fluticasone propionate/salmeterol combination provides more effective asthma control than low-dose inhaled corticosteroid plus montelukast. *J Allergy Clin Immunol* 2000;106(6):1088–1095.

Nelson HS, Nathan RA, Kalberg C, Yancey SW, Rickard KA. Comparison of inhaled salmeterol and oral zafirlukast in asthmatic patients using concomitant inhaled corticosteroids. *MedGenMed* 2001;3(4):3.

Nelson HS, Wolfe JD, Gross G, Greos LS, Baitinger L, Scott C, Dorinsky P. Efficacy and safety of fluticasone propionate 44 microg/salmeterol 21 microg administered in a hydrofluoroalkane metered-dose inhaler as an initial asthma maintenance treatment. *Ann Allergy Asthma Immunol* 2003;91(3):263–269.

Nelson HS, Weiss ST, Bleecker ER, Yancey SW, Dorinsky PM. The Salmeterol Multicenter Asthma Research Trial: a comparison of usual pharmacotherapy for asthma or usual pharmacotherapy plus salmeterol. *Chest* 2006;129(1):15–26.

Nelson SG, Grant EN, Trubitt MJ, Foggs MB, Weiss KB. A survey of asthma care in managed care organizations: results from the Chicago Asthma Surveillance Initiative. *Chest* 1999;116(4 Suppl 1):173S–178S.

Neri M, Spanevello A, Ambrosetti M, Ferronato P, Cagna C, Zanon P. Short and long-term evaluation of two structured self management programmes on asthma. *Monaldi Arch Chest Dis* 2001;56(3):208–210.

Nettis E, Colanardi MC, Ferrannini A, Tursi A. Short-term and long-term tolerability of rofecoxib in patients with prior reactions to nonsteroidal anti-inflammatory drugs. *Ann Allergy Asthma Immunol* 2005;94(1):29–33.

Netuveli G, Hurwitz B, Levy M, Fletcher M, Barnes G, Durham SR, Sheikh A. Ethnic variations in UK asthma frequency, morbidity, and health-service use: a systematic review and meta-analysis. *Lancet* 2005;365(9456):312–317.

Neuzil KM, Wright PF, Mitchel EF Jr, Griffin MR. The burden of influenza illness in children with asthma and other chronic medical conditions. *J Pediatr* 2000;137(6):856–864.

Neville RG, Hoskins G, Smith B, Clark RA. How general practitioners manage acute asthma attacks. *Thorax* 1997;52(2):153–156.

Newhouse MT, Patel P, Parry-Billings M. Protection against methacholine-induced bronchospasm: salbutamol pMDI versus Clickhaler DPI. *Eur Respir J* 2003;21(5):816–820.

Newman KB, Milne S, Hamilton C, Hall K. A comparison of albuterol administered by metered-dose inhaler and spacer with albuterol by nebulizer in adults presenting to an urban emergency department with acute asthma. *Chest* 2002;121(4):1036–1041.

Newson R, Strachan D, Archibald E, Emberlin J, Hardaker P, Collier C. Effect of thunderstorms and airborne grass pollen on the incidence of acute asthma in England, 1990–94. *Thorax* 1997;52(8):680–685.

Newson R, Strachan D, Archibald E, Emberlin J, Hardaker P, Collier C. Acute asthma epidemics, weather and pollen in England, 1987–1994. *Eur Respir J* 1998;11(3):694–701.

Newton MF, O'Donnell DE, Forkert L. Response of lung volumes to inhaled salbutamol in a large population of patients with severe hyperinflation. *Chest* 2002;121(4):1042–1050.

Ng D, Salvio F, Hicks G. Anti-leukotriene agents compared to inhaled corticosteroids in the management of recurrent and/or chronic asthma in adults and children. *Cochrane Database Syst Rev* 2004;(2):CD002314.

Ng TP. Validity of symptom and clinical measures of asthma severity for primary outpatient assessment of adult asthma. *Br J Gen Pract* 2000;50(450):7–12.

Ng TP, Wong ML, Hong CY, Koh KT, Goh LG. The use of complementary and alternative medicine by asthma patients. *QJM* 2003;96(10):747–754.

Nguyen LT, Lim S, Oates T, Chung KF. Increase in airway neutrophils after oral but not inhaled corticosteroid therapy in mild asthma. *Respir Med* 2005;99(2):200–207.

Ni CM, Greenstone IR, Ducharme FM. Addition of inhaled long-acting beta<sub>2</sub>-agonists to inhaled steroids as first line therapy for persistent asthma in steroid-naïve adults. *Cochrane Database Syst Rev* 2005;(2):CD005307.

Ni CM, Greenstone IR, Danish A, Magdolinos H, Masse V, Zhang X, Ducharme FM. Long-acting beta<sub>2</sub>-agonists versus placebo in addition to inhaled corticosteroids in children and adults with chronic asthma. *Cochrane Database Syst Rev* 2005;(4):CD005535.

Nicholson PJ, Cullinan P, Taylor AJ, Burge PS, Boyle C. Evidence based guidelines for the prevention, identification, and management of occupational asthma. *Occup Environ Med* 2005;62(5):290–299.

Niebauer K, Dewilde S, Fox-Rushby J, Revicki DA. Impact of omalizumab on quality-of-life outcomes in patients with moderate-to-severe allergic asthma. *Ann Allergy Asthma Immunol* 2006;96(2):316–326.

Nielsen KG, Bisgaard H. Bronchodilation and bronchoprotection in asthmatic preschool children from formoterol administered by mechanically actuated dry-powder inhaler and spacer. *Am J Respir Crit Care Med* 2001;164(2):256–259.

Nielsen KG, Bisgaard H. Discriminative capacity of bronchodilator response measured with three different lung function techniques in asthmatic and healthy children aged 2 to 5 years. *Am J Respir Crit Care Med* 2001;164(4):554–559.

Niggemann B, Leupold W, Schuster A, Schuster R, Berg A, Grubl A, Hardt H, Eibl MM, Wahn U. Prospective, double-blind, placebo-controlled, multicentre study on the effect of high-dose, intravenous immunoglobulin in children and adolescents with severe bronchial asthma. *Clin Exp Allergy* 1998;28(2):205–210.

Niggemann B, Paul K, Keitzer R, Wahn U. Vocal cord dysfunction in three children—misdiagnosis of bronchial asthma? *Pediatr Allergy Immunol* 1998;9(2):97–100.

Nightingale JA, Rogers DF, Barnes PJ. Effect of inhaled ozone on exhaled nitric oxide, pulmonary function, and induced sputum in normal and asthmatic subjects. *Thorax* 1999;54(12):1061–1069.

Nightingale JA, Rogers DF, Barnes PJ. Comparison of the effects of salmeterol and formoterol in patients with severe asthma. *Chest* 2002;121(5):1401–1406.

Niimi A, Matsumoto H, Amitani R, Nakano Y, Mishima M, Minakuchi M, Nishimura K, Itoh H, Izumi T. Airway wall thickness in asthma assessed by computed tomography. Relation to clinical indices. *Am J Respir Crit Care Med* 2000;162(4 Pt 1):1518–1523.

Niitsuma T, Morita S, Hayashi T, Homma M, Oka K. Effects of absorbed components of saiboku-to on the release of leukotrienes from polymorphonuclear leukocytes of patients with bronchial asthma. *Methods Find Exp Clin Pharmacol* 2001;23(2):99–104.

Nilsson L, Kjellman NI, Bjorksten B. A randomized controlled trial of the effect of pertussis vaccines on atopic disease. *Arch Pediatr Adolesc Med* 1998;152(8):734–738.

Nishimura K, Hajiro T, Oga T, Tsukino M, Sato S, Ikeda A. A comparison of two simple measures to evaluate the health status of asthmatics: the Asthma Bother Profile and the Airways Questionnaire 20. *J Asthma* 2004;41(2):141–146.

Nishiyama O, Kato K, Kume H, Ito Y, Suzuki R, Yamaki K. Asthma health status: influence of disease severity categorized by peak expiratory flow. *J Asthma* 2003;40(3):281–287.

No Authors Listed. Home-taught pediatric asthma program improves outcomes, cuts hospital, physician visits. *Health Care Cost Reengineering Rep* 1997;2(3):40–43.

No Authors Listed. Written asthma plans cut hospitalizations in half. *Healthc Benchmarks* 1997;4(12):180–181.

No Authors Listed. Allergic factors associated with the development of asthma and the influence of cetirizine in a double-blind, randomised, placebo-controlled trial: first results of ETAC. Early Treatment of the Atopic Child. *Pediatr Allergy Immunol* 1998;9(3):116–124.

No Authors Listed. Population-based asthma management produces dramatic cuts in ER visits, hospitalization. *Healthc Demand Dis Manag* 1998;4(5):77–79.

No Authors Listed. Hospital-based asthma program targets physician education to reduce pediatric ER visits. *Healthc Demand Dis Manag* 1999;5(7):104–107.

No Authors Listed. Combined oral, inhaled steroids prevent relapse in acute asthma. *Healthc Demand Dis Manag* 1999;5(8):123–125.

No Authors Listed. Stable severe asthma: vaccinate against influenza. Protect against exacerbation. *Prescribe Int* 2002;11(60):123–124.

No Authors Listed. Intravenous magnesium for acute asthma? *Drug Ther Bull* 2003;41(10):79–80.

No Authors Listed. Action plans in asthma. *Drug Ther Bull* 2005;43(12):91–94.

Noertjojo K, Dimich-Ward H, Obata H, Manfreda J, Chan-Yeung M. Exposure and sensitization to cat dander: asthma and asthma-like symptoms among adults. *J Allergy Clin Immunol* 1999;103(1 Pt 1):60–65.

Noga O, Hanf G, Kunkel G. Immunological and clinical changes in allergic asthmatics following treatment with omalizumab. *Int Arch Allergy Immunol* 2003;131(1):46–52.

Nomura S, Fujitaka M, Sakura N, Ueda K. Adrenocortical function in asthmatic children: low levels of adrenocortical hormones in children with persistent attacks. *Eur J Pediatr* 1997;156(4):323–328.

Noonan M, Karpel JP, Bensch GW, Ramsdell JW, Webb DR, Nolop KB, Lutsky BN. Comparison of once-daily to twice-daily treatment with mometasone furoate dry powder inhaler. *Ann Allergy Asthma Immunol* 2001;86(1):36–43.

Noonan MJ, Chervinsky P, Brandon M, Zhang J, Kundu S, McBurney J, Reiss TF. Montelukast, a potent leukotriene receptor antagonist, causes dose-related improvements in chronic asthma. Montelukast Asthma Study Group. *Eur Respir J* 1998;11(6):1232–1239.

Noseda A, De Bruyne I, De Maertelaer V, Yernault JC. Does an IV bolus of methylprednisolone relieve dyspnea in asthma exacerbations? *Chest* 2000;118(6):1530–1537.

Nouwen A, Freeston MH, Labbe R, Boulet LP. Psychological factors associated with emergency room visits among asthmatic patients. *Behav Modif* 1999;23(2):217–233.

Nowak RM, Emerman CL, Schaefer K, Disantostefano RL, Vaickus L, Roach JM. Levalbuterol compared with racemic albuterol in the treatment of acute asthma: results of a pilot study. *Am J Emerg Med* 2004;22(1):29–36.

Nuhoglu Y, Bahceciler NN, Barlan IB, Mujdat BM. The effectiveness of high-dose inhaled budesonide therapy in the treatment of acute asthma exacerbations in children. *Ann Allergy Asthma Immunol* 2001;86(3):318–322.

Numata Y, Bourbeau J, Ernst P, Duquette G, Schwartzman K. Teaching time for metered-dose inhalers in the emergency setting. *Chest* 2002;122(2):498–504.

Nunn P. Medical emergencies in the oral health care setting. *J Dent Hyg* 2000;74(2):136–151.

Nutman A, Solomon Y, Mendel S, Nutman J, Hines E, Topilsky M, Kivity S. The use of a neural network for studying the relationship between air pollution and asthma-related emergency room visits. *Respir Med* 1998;92(10):1199–1202.

Nystad W, Harris J, Borgen JS. Asthma and wheezing among Norwegian elite athletes. *Med Sci Sports Exerc* 2000;32(2):266–270.

Nystad W, Meyer HE, Nafstad P, Tverdal A, Engeland A. Body mass index in relation to adult asthma among 135,000 Norwegian men and women. *Am J Epidemiol* 2004;160(10):969–976.

O'Byrne PM, Barnes PJ, Rodriguez-Roisin R, Runnerstrom E, Sandstrom T, Svensson K, Tattersfield A. Low dose inhaled budesonide and formoterol in mild persistent asthma: the OPTIMA randomized trial. *Am J Respir Crit Care Med* 2001;164(8 Pt 1):1392–1397.

O'Byrne PM, Bisgaard H, Godard PP, Pistolesi M, Palmqvist M, Zhu Y, Ekstrom T, Bateman ED. Budesonide/formoterol combination therapy as both maintenance and reliever medication in asthma. *Am J Respir Crit Care Med* 2005;171(2):129–136. Epub October 2004.

O'Callaghan C, Everard ML, Bush A, Hiller EJ, Ross-Russell R, O'Keefe P, Weller P. Salbutamol dry powder inhaler: efficacy, tolerability, and acceptability study. *Pediatr Pulmonol* 2002;33(3):189–193.

O'Connor B, Bonnaud G, Haahtela T, Luna JM, Querfurt H, Wegener T, Lutsky BN. Dose-ranging study of mometasone furoate dry powder inhaler in the treatment of moderate persistent asthma using fluticasone propionate as an active comparator. *Ann Allergy Asthma Immunol* 2001;86(4):397–404.

O'Connor GT, Walter M, Mitchell H, Kattan M, Morgan WJ, Gruchalla RS, Pongracic JA, Smartt E, Stout JW, Evans R, et al. Airborne fungi in the homes of children with asthma in low-income urban communities: The Inner-City Asthma Study. *J Allergy Clin Immunol* 2004;114(3):599–606.

O'Connor RD, O'Donnell JC, Pinto LA, Wiener DJ, Legorreta AP. Two-year retrospective economic evaluation of three dual-controller therapies used in the treatment of asthma. *Chest* 2002;121(4):1028–1035.

O'Connor RD, Stanford R, Crim C, Yancey SW, Edwards L, Rickard KA, Dorinsky P. Effect of fluticasone propionate and salmeterol in a single device, fluticasone propionate, and montelukast on overall asthma control, exacerbations, and costs. *Ann Allergy Asthma Immunol* 2004;93(6):581–588.

O'Donnell J, Birkinshaw R, Burke V, Driscoll PA. The ability of A&E personnel to demonstrate inhaler technique. *J Accid Emerg Med* 1997;14(3):163–164.

O'Sullivan S, Cormican L, Faul JL, Ichinohe S, Johnston SL, Burke CM, Poulter LW. Activated, cytotoxic CD8(+) T lymphocytes contribute to the pathology of asthma death. *Am J Respir Crit Care Med* 2001;164(4):560–564.

Oba Y, Salzman GA. Cost-effectiveness analysis of omalizumab in adults and adolescents with moderate-to-severe allergic asthma. *J Allergy Clin Immunol* 2004;114(2):265–269.

Obase Y, Shimoda T, Mitsuta K, Matsuo N, Matsuse H, Kohno S. Sensitivity to the house dust mite and airway hyperresponsiveness in a young adult population. *Ann Allergy Asthma Immunol* 1999;83(4):305–310.

Oberle D, von Mutius E, von Kries R. Childhood asthma and continuous exposure to cats since the first year of life with cats allowed in the child's bedroom. *Allergy* 2003;58(10):1033–1036.

Oberndorfer S, Beate U, Sabine U, Peter H, Heinz L, Barabra H, Wolfgang G. Churg Strauss syndrome during treatment of bronchial asthma with a leukotriene receptor antagonist presenting with polyneuropathy. *Neurologia* 2004;19(3):134–138.

Ochsner AK, Alexander JL, Davis A. Increasing awareness of asthma and asthma resources in communities on the southwest border. *J Am Acad Nurse Pract* 2002;14(5):225–230, 232, 234.

Oddoze C, Dubus JC, Badier M, Thirion X, Pauli AM, Pastor J, Bruguerolle B. Urinary cotinine and exposure to parental smoking in a population of children with asthma. *Clin Chem* 1999;45(4):505–509.

Oddy WH, Holt PG, Sly PD, Read AW, Landau LI, Stanley FJ, Kendall GE, Burton PR. Association between breast feeding and asthma in 6 year old children: findings of a prospective birth cohort study. *BMJ* 1999;319(7213):815–819.

Oermann MH, Gerich J, Ostosh L, Zaleski S. Evaluation of asthma websites for patient and parent education. *J Pediatr Nurs* 2003;18(6):389–396.

Ogston J, Butcher JD. A sport-specific protocol for diagnosing exercise-induced asthma in cross-country skiers. *Clin J Sport Med* 2002;12(5):291–295.

Ohnishi A. A review of clinical use of theophylline in acute asthma: factors influencing kinetic disposition and drug interactions. *Methods Find Exp Clin Pharmacol* 2000;22(4):253–258.

Ojoo JC, Mulrennan SA, Kastelik JA, Morice AH, Redington AE. Exhaled breath condensate pH and exhaled nitric oxide in allergic asthma and in cystic fibrosis. *Thorax* 2005;60(1):22–26.

Okelo SO, Wu AW, Krishnan JA, Rand CS, Skinner EA, Diette GB. Emotional quality-of-life and outcomes in adolescents with asthma. *J Pediatr* 2004;145(4):523–529.

Olaguibel JM, Tabar AI, Garcia BE, Martin S, Rico P. Long-term immunotherapy with an optimal maintenance dose of a standardized Dermatophagoides pteronyssinus extract in asthmatic patients. *J Investig Allergol Clin Immunol* 1999;9(2):110–116.

Oldfield WL, Kay AB, Larche M. Allergen-derived T cell peptide-induced late asthmatic reactions precede the induction of antigen-specific hyporesponsiveness in atopic allergic asthmatic subjects. *J Immunol* 2001;167(3):1734–1739.

Oldfield WL, Larche M, Kay AB. Effect of T-cell peptides derived from Fel d 1 on allergic reactions and cytokine production in patients sensitive to cats: a randomised controlled trial. *Lancet* 2002;360(9326):47–53.

Olopade CO, Alikakos Z, Abubaker J, Rubinstein IR. Characteristics of predominantly nonwhite patients with frequent hospitalizations for acute asthma in Chicago. *J Asthma* 1997;34(3):243–248.

Olsen OT, Larsen KR, Jacobsen L, Svendsen UG. A 1-year, placebo-controlled, double-blind house-dust-mite immunotherapy study in asthmatic adults. *Allergy* 1997;52(8):853–859.

Ono Y, Kondo T, Tanigaki T, Ohta Y. Furosemide given by inhalation ameliorates acute exacerbation of asthma. *J Asthma* 1997;34(4):283–289.

Onyeije CI, Sherer DM, Ham L, Weiss N, Sylvester G. Transient marked atelectasis: an unusual complication of asthma in pregnancy. *Am J Perinatol* 1999;16(10):521–524.

Onyirimba F, Apter A, Reisine S, Litt M, McCusker C, Connors M, ZuWallack R. Direct clinician-to-patient feedback discussion of inhaled steroid use: its effect on adherence. *Ann Allergy Asthma Immunol* 2003;90(4):411–415.

Oommen A, Lambert PC, Grigg J. Efficacy of a short course of parent-initiated oral prednisolone for viral wheeze in children aged 1–5 years: randomised controlled trial. *Lancet* 2003;362(9394):1433–1438.

Opal AJ, Cohen MM, Bailey MJ, Abramson MJ. A clinical trial of the Buteyko Breathing Technique in asthma as taught by a video. *J Asthma* 2000;37(7):557–564.

Ordonez CL, Shaughnessy TE, Matthay MA, Fahy JV. Increased neutrophil numbers and IL-8 levels in airway secretions in acute severe asthma: Clinical and biologic significance. *Am J Respir Crit Care Med* 2000;161(4 Pt 1):1185–1190.

Ordonez GA, Phelan PD, Olinsky A, Robertson CF. Preventable factors in hospital admissions for asthma. *Arch Dis Child* 1998;78(2):143–147.

Orhan F, Sekerel BE, Kocabas CN, Sackesen C, Adalioglu G, Tuncer A. Complementary and alternative medicine in children with asthma. *Ann Allergy Asthma Immunol* 2003;90(6):611–615.

Orhan F, Baki A. The bronchodilatory effects of loratadine, terbutaline, and both together versus placebo in childhood asthma. *J Investig Allergol Clin Immunol* 2003;13(3):189–192.

Ornstein SM, Jenkins RG. Quality of care for chronic illness in primary care: opportunity for improvement in process and outcome measures. *Am J Manag Care* 1999;5(5):621–627.

Orsini L, Limpa-Amara S, Crown WH, Stanford RH, Kamal K. Asthma hospitalization risk and costs for patients treated with fluticasone propionate vs montelukast. *Ann Allergy Asthma Immunol* 2004;92(5):523–529.

Ortega AN, Gergen PJ, Paltiel AD, Bauchner H, Belanger KD, Leaderer BP. Impact of site of care, race, and Hispanic ethnicity on medication use for childhood asthma. *Pediatrics* 2002;109(1):E1.

Ortega AN, McQuaid EL, Canino G, Goodwin RD, Fritz GK. Comorbidity of asthma and anxiety and depression in Puerto Rican children. *Psychosomatics* 2004;45(2):93–99.

Ortiz G, Menendez R. The effects of inhaled albuterol and salmeterol in 2- to 5-year-old asthmatic children as measured by impulse oscillometry. *J Asthma* 2002;39(6):531–536.

Oruwariye T, Webber MP, Ozuah P. Do school-based health centers provide adequate asthma care? *J Sch Health* 2003;73(5):186–190.

Osman LM, Abdalla MI, Russell IT, Fiddes J, Friend JA, Legge JS, Douglas JG. Integrated care for asthma: matching care to the patient. *Eur Respir J* 1996;9(3):444–448.

Osman LM, Friend JA, Legge JS, Douglas JG. Requests for repeat medication prescriptions and frequency of acute episodes in asthma patients. *J Asthma* 1999;36(5):449–457.

Osman LM, Calder C, Godden DJ, Friend JA, McKenzie L, Legge JS, Douglas JG. A randomised trial of self-management planning for adult patients admitted to hospital with acute asthma. *Thorax* 2002;57(10):869–874.

Ostrom NK. Tolerability of short-term, high-dose formoterol in healthy volunteers and patients with asthma. *Clin Ther* 2003;25(11):2635–2646.

Otani K, Kanazawa H, Fujiwara H, Hirata K, Fujimoto S, Yoshikawa J. Determinants of the severity of exercise-induced bronchoconstriction in patients with asthma. *J Asthma* 2004;41(3):271–278.

Overbeek SE, O'Sullivan S, Leman K, Mulder PG, Hoogsteden HC, Prins JB. Effect of montelukast compared with inhaled fluticasone on airway inflammation. *Clin Exp Allergy* 2004;34(9):1388–1394.

Overbeek SE, Mulder PG, Baelemans SM, Hoogsteden HC, Prins JB. Formoterol added to low-dose budesonide has no additional antiinflammatory effect in asthmatic patients. *Chest* 2005;128(3):1121–1127.

Ownby DR, Johnson CC, Peterson EL. Exposure to dogs and cats in the first year of life and risk of allergic sensitization at 6 to 7 years of age. *JAMA* 2002;288(8):963–972.

Paasche-Orlow MK, Riekert KA, Bilderback A, Chanmugam A, Hill P, Rand CS, Brancati FL, Krishnan JA. Tailored education may reduce health literacy disparities in asthma self-management. *Am J Respir Crit Care Med* 2005;172(8):980–986.

Padkin AJ, Baigel G, Morgan GA. Halothane treatment of severe asthma to avoid mechanical ventilation. *Anaesthesia* 1997;52(10):994–997.

Pajno GB, Morabito L, Barberio G, Parmiani S. Clinical and immunologic effects of long-term sublingual immunotherapy in asthmatic children sensitized to mites: a double-blind, placebo-controlled study. *Allergy* 2000;55(9):842–849.

Pajno GB, Barberio G, De Luca F, Morabito L, Parmiani S. Prevention of new sensitizations in asthmatic children monosensitized to house dust mite by specific immunotherapy. A six-year follow-up study. *Clin Exp Allergy* 2001;31(9):1392–1397.

Palmer GM. A teenager with severe asthma exacerbation following ibuprofen. *Anaesth Intensive Care* 2005;33(2):261–265.

Palmer LJ, Rye PJ, Gibson NA, Burton PR, Landau LI, LeSouef PN. Airway responsiveness in early infancy predicts asthma, lung function, and respiratory symptoms by school age. *Am J Respir Crit Care Med* 2001;163(1):37–42.

Palmqvist M, Arvidsson P, Beckman O, Peterson S, Lotvall J. Onset of bronchodilation of budesonide/formoterol vs. salmeterol/fluticasone in single inhalers. *Pulm Pharmacol Ther* 2001;14(1):29–34.

Pande JN, Bhatta N, Biswas D, Pandey RM, Ahluwalia G, Siddaramaiah NH, Khilnani GC. Outdoor air pollution and emergency room visits at a hospital in Delhi. *Indian J Chest Dis Allied Sci* 2002;44(1):13–19.

Panditi S, Silverman M. Perception of exercise induced asthma by children and their parents. *Arch Dis Child* 2003;88(9):807–811.

Papiris S, Kotanidou A, Malagari K, Roussos C. Clinical review: severe asthma. *Crit Care* 2002;6(1):30–44.

Parameswaran K, Belda J, Rowe BH. Addition of intravenous aminophylline to beta<sub>2</sub>-agonists in adults with acute asthma. *Cochrane Database Syst Rev* 2000;(4):CD002742.

Parameswaran K, Pizzichini E, Pizzichini MM, Hussack P, Efthimiadis A, Hargreave FE. Clinical judgement of airway inflammation versus sputum cell counts in patients with asthma. *Eur Respir J* 2000;15(3):486–490.

Paredi P, Kharitonov SA, Barnes PJ. Elevation of exhaled ethane concentration in asthma. *Am J Respir Crit Care Med* 2000;162(4 Pt 1):1450–1454.

Paret G, Kornecki A, Szeinberg A, Vardi A, Barzilai A, Augarten A, Barzilay Z. Severe acute asthma in a community hospital pediatric intensive care unit: a ten years' experience. *Ann Allergy Asthma Immunol* 1998;80(4):339–344.

Park HW, Min KU, Kim YY, Cho SH. Assessing the quality and contents of asthma-related information on the Korean internet as an educational material for patients. *J Korean Med Sci* 2004;19(3):364–368.

Park JH, Gold DR, Spiegelman DL, Burge HA, Milton DK. House dust endotoxin and wheeze in the first year of life. *Am J Respir Crit Care Med* 2001;163(2):322–328.

- Park SW, Kim dJ, Chang HS, Park SJ, Lee YM, Park JS, Chung IY, Lee JH, Park CS. Association of interleukin-5 and eotaxin with acute exacerbation of asthma. *Int Arch Allergy Immunol* 2003;131(4):283–290.
- Park SW, Park JS, Lee YM, Lee JH, Jang AS, Kim DJ, Hwangbo Y, Uh ST, Kim YH, Park CS. Differences in radiological/HRCT findings in eosinophilic bronchitis and asthma: implication for bronchial responsiveness. *Thorax* 2006;61(1):41–47.
- Parker TJ, Daley-Yates PT, Wood SA. A comparative population pharmacokinetic analysis for methylprednisolone following multiple dosing of two prodrugs in patients with acute asthma. *Br J Clin Pharmacol* 1997;43(6):589–592.
- Partridge MR, Latouche D, Trako E, Thurston JG. A national census of those attending UK accident and emergency departments with asthma. The UK National Asthma Task Force. *J Accid Emerg Med* 1997;14(1):16–20.
- Partridge MR, Dockrell M, Smith NM. The use of complementary medicines by those with asthma. *Respir Med* 2003;97(4):436–438.
- Pasternack R, Huhtala H, Karjalainen J. Chlamydophila (Chlamydia) pneumoniae serology and asthma in adults: a longitudinal analysis. *J Allergy Clin Immunol* 2005;116(5):1123–1128.
- Patel A, Harrison E, Durward A, Murdoch IA. Intratracheal recombinant human deoxyribonuclease in acute life-threatening asthma refractory to conventional treatment. *Br J Anaesth* 2000;84(4):505–507.
- Patel L, Wales JK, Kibirige MS, Massarano AA, Couriel JM, Clayton PE. Symptomatic adrenal insufficiency during inhaled corticosteroid treatment. *Arch Dis Child* 2001;85(4):330–334.
- Patel NJ, Jorgensen C, Kuhn J, Merati AL. Concurrent laryngeal abnormalities in patients with paradoxical vocal fold dysfunction. *Otolaryngol Head Neck Surg* 2004;130(6):686–689.
- Patel PH, Welsh C, Foggs MB. Improved asthma outcomes using a coordinated care approach in a large medical group. *Dis Manag* 2004;7(2):102–111.
- Patterson EE, Brennan MP, Linskey KM, Webb DC, Shields MD, Patterson CC. A cluster randomised intervention trial of asthma clubs to improve quality of life in primary school children: the School Care and Asthma Management Project (SCAMP). *Arch Dis Child* 2005;90(8):786–791.
- Paul K, Klettke U, Wahn U. The combined influence of immunotherapy and mite allergen reduction on bronchial hyperresponsiveness in mite-sensitive asthmatic children. *Eur J Pediatr* 1998;157(2):109–113.
- Paull K, Covar R, Jain N, Gelfand EW, Spahn JD. Do NHLBI lung function criteria apply to children? A cross-sectional evaluation of childhood asthma at National Jewish Medical and Research Center, 1999–2002. *Pediatr Pulmonol* 2005;39(4):311–317.

Pauwels RA, Lofdahl CG, Postma DS, Tattersfield AE, O'Byrne P, Barnes PJ, Ullman A. Effect of inhaled formoterol and budesonide on exacerbations of asthma. Formoterol and Corticosteroids Establishing Therapy (FACET) International Study Group. *N Engl J Med* 1997;337(20):1405–1411.

Pauwels RA, Busse WW, O'Byrne PM, Pedersen S, Tan WC, Chen YZ, Ohlsson SV, Ullman A. The inhaled Steroid Treatment as Regular Therapy in early asthma (START) study: rationale and design. *Control Clin Trials* 2001;22(4):405–419.

Pauwels RA, Pedersen S, Busse WW, Tan WC, Chen YZ, Ohlsson SV, Ullman A, Lamm CJ, O'Byrne PM. Early intervention with budesonide in mild persistent asthma: a randomised, double-blind trial. *Lancet* 2003;361(9363):1071–1076.

Pauwels RA, Sears MR, Campbell M, Villasante C, Huang S, Lindh A, Petermann W, Aubier M, Schwabe G, Bengtsson T. Formoterol as relief medication in asthma: a worldwide safety and effectiveness trial. *Eur Respir J* 2003;22(5):787–794.

Payne DN, Qiu Y, Zhu J, Peachey L, Scallan M, Bush A, Jeffery PK. Airway inflammation in children with difficult asthma: relationships with airflow limitation and persistent symptoms. *Thorax* 2004;59(10):862–869.

Pearlman DS, Ostrom NK, Bronsky EA, Bonuccelli CM, Hanby LA. The leukotriene D4-receptor antagonist zafirlukast attenuates exercise-induced bronchoconstriction in children. *J Pediatr* 1999;134(3):273–279.

Pearlman DS, Lampl KL, Dowling PJ Jr, Miller CJ, Bonuccelli CM. Effectiveness and tolerability of zafirlukast for the treatment of asthma in children. *Clin Ther* 2000;22(6):732–747.

Pearlman DS, White MV, Lieberman AK, Pepsin PJ, Kalberg C, Emmett A, Bowers B, Rickard KA, Dorinsky P. Fluticasone propionate/salmeterol combination compared with montelukast for the treatment of persistent asthma. *Ann Allergy Asthma Immunol* 2002;88(2):227–235.

Pearlman DS, Berger WE, Kerwin E, LaForce C, Kundu S, Banerji D. Once-daily ciclesonide improves lung function and is well tolerated by patients with mild-to-moderate persistent asthma. *J Allergy Clin Immunol* 2005;116(6):1206–1212.

Pedersen S, Warner J, Wahn U, Staab D, Le Bourgeois M, Essen-Zandvliet E, Arora S, Szefler SJ. Growth, systemic safety, and efficacy during 1 year of asthma treatment with different beclomethasone dipropionate formulations: an open-label, randomized comparison of extrafine and conventional aerosols in children. *Pediatrics* 2002;109(6):e92.

Peigang Y, Marini JJ. Ventilation of patients with asthma and chronic obstructive pulmonary disease. *Curr Opin Crit Care* 2002;8(1):70–76.

Peled R, Friger M, Bolotin A, Bibi H, Epstein L, Pilpel D, Scharf S. Fine particles and meteorological conditions are associated with lung function in children with asthma living near two power plants. *Public Health* 2005;119(5):418–425.

Peleg R, Gehtman P, Blancovich I, Aburabia R, Allush R, Hazut S, Shvartzman P. Outcomes of an intervention programme for treatment of asthma in a primary care clinic for Bedouins in southern Israel. *Fam Pract* 2002;19(5):448–451.

Pendergraft TB, Stanford RH, Beasley R, Stempel DA, Roberts C, McLaughlin T. Rates and characteristics of intensive care unit admissions and intubations among asthma-related hospitalizations. *Ann Allergy Asthma Immunol* 2004;93(1):29–35.

Pendino JC, Nannini LJ, Chapman KR, Slutsky A, Molfino NA. Effect of inhaled furosemide in acute asthma. *J Asthma* 1998;35(1):89–93.

Perez MG, Feldman L, Caballero F. Effects of a self-management educational program for the control of childhood asthma. *Patient Educ Couns* 1999;36(1):47–55.

Perneger TV, Sudre P, Muntner P, Uldry C, Courteheuse C, Naef AF, Jacquemet S, Nicod L, Rochat T, Assal JP. Effect of patient education on self-management skills and health status in patients with asthma: a randomized trial. *Am J Med* 2002;113(1):7–14.

Perng DW, Huang HY, Lee YC, Perng RP. Leukotriene modifier vs inhaled corticosteroid in mild-to-moderate asthma: clinical and anti-inflammatory effects. *Chest* 2004;125(5):1693–1699.

Peroni DG, Piacentini GL, Ress M, Bodini A, Loiacono A, Aralla R, Boner AL. Time efficacy of a single dose of montelukast on exercise-induced asthma in children. *Pediatr Allergy Immunol* 2002;13(6):434–437.

Peroni DG, Piacentini GL, Pietrobelli A, Loiacono A, De Gasperi W, Sabbion A, Micciolo R, Boner AL. The combination of single-dose montelukast and loratadine on exercise-induced bronchospasm in children. *Eur Respir J* 2002;20(1):104–107.

Peroni DG, Piacentini GL, Costella S, Pietrobelli A, Bodini A, Loiacono A, Aralla R, Boner AL. Mite avoidance can reduce air trapping and airway inflammation in allergic asthmatic children. *Clin Exp Allergy* 2002;32(6):850–855.

Perruchoud AP, Lundback B, Yigla M, Sykes AP. Clinical efficacy and safety of fluticasone propionate 1 mg per day administered via a HFA 134a pressurized metered dose inhaler to patients with moderate to severe asthma. International study group. *Respir Med* 2000;94(Suppl B):S35–S41.

Pershad J, Chin T. Early detection of cardiac disease masquerading as acute bronchospasm: The role of bedside limited echocardiography by the emergency physician. *Pediatr Emerg Care* 2003;19(2):E1–E3.

Persky V, Coover L, Hernandez E, Contreras A, Slezak J, Piorkowski J, Curtis L, Turyk M, Ramakrishnan V, Scheff P. Chicago community-based asthma intervention trial: feasibility of delivering peer education in an inner-city population. *Chest* 1999;116(4 Suppl 1):216S–223S.

Perzanowski MS, Sporik R, Squillace SP, Gelber LE, Call R, Carter M, Platts-Mills TA. Association of sensitization to Alternaria allergens with asthma among school-age children. *J Allergy Clin Immunol* 1998;101(5):626–632.

Perzanowski MS, Ronmark E, Nold B, Lundback B, Platts-Mills TA. Relevance of allergens from cats and dogs to asthma in the northernmost province of Sweden: schools as a major site of exposure. *J Allergy Clin Immunol* 1999;103(6):1018–1024.

Perzanowski MS, Ronmark E, Platts-Mills TA, Lundback B. Effect of cat and dog ownership on sensitization and development of asthma among preteenage children. *Am J Respir Crit Care Med* 2002;166(5):696–702.

Peters EJ, Hatley TK, Crater SE, Phillips CD, Platts-Mills TA, Borish L. Sinus computed tomography scan and markers of inflammation in vocal cord dysfunction and asthma. *Ann Allergy Asthma Immunol* 2003;90(3):316–322.

Peters JI, Shelledy DC, Jones AP Jr, Lawson RW, Davis CP, LeGrand TS. A randomized, placebo-controlled study to evaluate the role of salmeterol in the in-hospital management of asthma. *Chest* 2000;118(2):313–320.

Petersen DL, Murphy DE, Jaffe DM, Richardson MS, Fisher EB Jr, Shannon W, Sussman L, Strunk RC. A tool to organize instructions at discharge after treatment of asthmatic children in an emergency department. *J Asthma* 1999;36(7):597–603.

Petersen R, Agertoft L, Pedersen S. Treatment of exercise-induced asthma with beclomethasone dipropionate in children with asthma. *Eur Respir J* 2004;24(6):932–937.

Peterson-Sweeney K, McMullen A, Yoos HL, Kitzman H. Parental perceptions of their child's asthma: management and medication use. *J Pediatr Health Care* 2003;17(3):118–125.

Peterson GM, Boyles PJ, Bleasel MD, Vial JH. Ipratropium treatment of acute airways disease. *Ann Pharmacother* 2003;37(3):339–344.

Peterson MW, Strommer-Pace L, Dayton C. Asthma patient education: current utilization in pulmonary training programs. *J Asthma* 2001;38(3):261–267.

Petkova V. The role of information for improvement of patients' treatment in Bulgaria. *Cent Eur J Public Health* 2004;12(2):69–74.

Petrillo TM, Fortenberry JD, Linzer JF, Simon HK. Emergency department use of ketamine in pediatric status asthmaticus. *J Asthma* 2001;38(8):657–664.

Pettersson E, Gardulf A, Nordstrom G, Svanberg-Johnsson C, Bylin G. Evaluation of a nurse-run asthma school. *Int J Nurs Stud* 1999;36(2):145–151.

Pezzoli L, Giardini G, Consonni S, Dallera I, Bilotta C, Ferrario G, Cristina SM, Annoni G, Vergani C. Quality of spirometric performance in older people. *Age Ageing* 2003;32(1):43–46.

Pfleger A, Eber E, Weinhandl E, Zach MS. Effects of nedocromil and salbutamol on airway reactivity in children with asthma. *Eur Respir J* 2002;20(3):624–629.

Phanareth K, Hansen LS, Christensen LK, Laursen LC, Hansen EF. Treatment of acute severe asthma and chronic obstructive pulmonary disease in Danish hospitals. Do national recommendations improve on the quality of the treatment? *Respir Med* 2002;96(9):653–658.

Phanareth K, Hansen LS, Christensen LK, Laursen LC. A proposal for a practical treatment guideline designed for the initial two-hours of the management of patients with acute severe asthma and COPD using the principles of evidence-based medicine. *Respir Med* 2002;96(9):659–671.

Phillips K, Oborne J, Lewis S, Harrison TW, Tattersfield AE. Time course of action of two inhaled corticosteroids, fluticasone propionate and budesonide. *Thorax* 2004;59(1):26–30.

Phipatanakul W, Eggleston PA, Wright EC, Wood RA. Mouse allergen. II. The relationship of mouse allergen exposure to mouse sensitization and asthma morbidity in inner-city children with asthma. *J Allergy Clin Immunol* 2000;106(6):1075–1080.

Phipatanakul W, Eggleston PA, Conover-Walker MK, Kesavanathan J, Sweitzer D, Wood RA. A randomized, double-blind, placebo-controlled trial of the effect of zafirlukast on upper and lower respiratory responses to cat challenge. *J Allergy Clin Immunol* 2000;105(4):704–710.

Phipatanakul W, Nowak-Wegrzyn A, Eggleston PA, Van Natta M, Kesavan J, Schuberth K, Wood RA. The efficacy of montelukast in the treatment of cat allergen-induced asthma in children. *J Allergy Clin Immunol* 2002;109(5):794–799.

Phipatanakul W, Greene C, Downes SJ, Cronin B, Eller TJ, Schneider LC, Irani AM. Montelukast improves asthma control in asthmatic children maintained on inhaled corticosteroids. *Ann Allergy Asthma Immunol* 2003;91(1):49–54.

Phipatanakul W, Cronin B, Wood RA, Eggleston PA, Shih MC, Song L, Tachdjian R, Oettgen HC. Effect of environmental intervention on mouse allergen levels in homes of inner-city Boston children with asthma. *Ann Allergy Asthma Immunol* 2004;92(4):420–425.

Phipatanakul W, Celedon JC, Sredl DL, Weiss ST, Gold DR. Mouse exposure and wheeze in the first year of life. *Ann Allergy Asthma Immunol* 2005;94(5):593–599.

Phipps P, Garrard CS. The pulmonary physician in critical care. 12: Acute severe asthma in the intensive care unit. *Thorax* 2003;58(1):81–88.

Phoa LL, Toelle BG, Ng K, Marks GB. Effects of gas and other fume emitting heaters on the development of asthma during childhood. *Thorax* 2004;59(9):741–745.

Picken HA, Greenfield S, Teres D, Hirway PS, Landis JN. Effect of local standards on the implementation of national guidelines for asthma: primary care agreement with national asthma guidelines. *J Gen Intern Med* 1998;13(10):659–663.

Pifferi M, Ragazzo V, Caramella D, Baldini G. Eosinophil cationic protein in infants with respiratory syncytial virus bronchiolitis: predictive value for subsequent development of persistent wheezing. *Pediatr Pulmonol* 2001;31(6):419–424.

Pifferi M, Baldini G, Marazzini G, Baldini M, Ragazzo V, Pietrobelli A, Boner AL. Benefits of immunotherapy with a standardized Dermatophagoides pteronyssinus extract in asthmatic children: a three-year prospective study. *Allergy* 2002;57(9):785–790.

Pifferi M, Caramella D, Ragazzo V, Pietrobelli A, Boner AL. Low-density areas on high-resolution computed tomograms in chronic pediatric asthma. *J Pediatr* 2002;141(1):104–108.

Pijnenburg MW, Hofhuis W, Hop WC, de Jongste JC. Exhaled nitric oxide predicts asthma relapse in children with clinical asthma remission. *Thorax* 2005;60(3):215–218.

Pikhart H, Bobak M, Gorynski P, Wojtyniak B, Danova J, Celko MA, Kriz B, Briggs D, Elliott P. Outdoor sulphur dioxide and respiratory symptoms in Czech and Polish school children: a small-area study (SAVIAH). Small-Area Variation in Air Pollution and Health. *Int Arch Occup Environ Health* 2001;74(8):574–578.

Pilotto LS, Nitschke M, Smith BJ, Pisaniello D, Ruffin RE, McElroy HJ, Martin J, Hiller JE. Randomized controlled trial of unflued gas heater replacement on respiratory health of asthmatic schoolchildren. *Int J Epidemiol* 2004;33(1):208–214.

Pinnock H, Johnson A, Young P, Martin N. Are doctors still failing to assess and treat asthma attacks? An audit of the management of acute attacks in a health district. *Respir Med* 1999;93(6):397–401.

Pinnock H, Bawden R, Proctor S, Wolfe S, Scullion J, Price D, Sheikh A. Accessibility, acceptability, and effectiveness in primary care of routine telephone review of asthma: pragmatic, randomised controlled trial. *BMJ* 2003;326(7387):477–479.

Pinnock H, Juniper EF, Sheikh A. Concordance between supervised and postal administration of the Mini Asthma Quality of Life Questionnaire (MiniAQLQ) and Asthma Control Questionnaire (ACQ) was very high. *J Clin Epidemiol* 2005;58(8):809–814.

Pinto Pereira LM, Clement Y, Da Silva CK, McIntosh D, Simeon DT. Understanding and use of inhaler medication by asthmatics in specialty care in Trinidad: a study following development of Caribbean guidelines for asthma management and prevention. *Chest* 2002;121(6):1833–1840.

Pinto PL, Clement Y, Simeon D. Educational intervention for correct pressurised metered dose inhaler technique in Trinidadian patients with asthma. *Patient Educ Couns* 2001;42(1):91–97.

Pirie J, Cox P, Johnson D, Schuh S. Changes in treatment and outcomes of children receiving care in the intensive care unit for severe acute asthma. *Pediatr Emerg Care* 1998;14(2):104–108.

Pitten FA, Scholler M, Kruger U, Effendy I, Kramer A. Filamentous fungi and yeasts on mattresses covered with different encasings. *Eur J Dermatol* 2001;11(6):534–537.

Pizzichini E, Leff JA, Reiss TF, Hendeles L, Boulet LP, Wei LX, Efthimiadis AE, Zhang J, Hargreave FE. Montelukast reduces airway eosinophilic inflammation in asthma: a randomized, controlled trial. *Eur Respir J* 1999;14(1):12–18.

Pizzichini MM, Pizzichini E, Clelland L, Efthimiadis A, Mahony J, Dolovich J, Hargreave FE. Sputum in severe exacerbations of asthma: kinetics of inflammatory indices after prednisone treatment. *Am J Respir Crit Care Med* 1997;155(5):1501–1508.

Plaschke P, Janson C, Balder B, Lowhagen O, Jarvholm B. Adult asthmatics sensitized to cats and dogs: symptoms, severity, and bronchial hyperresponsiveness in patients with furred animals at home and patients without these animals. *Allergy* 1999;54(8):843–850.

Platts-Mills T, Vaughan J, Squillace S, Woodfolk J, Sporik R. Sensitisation, asthma, and a modified Th2 response in children exposed to cat allergen: a population-based cross-sectional study. *Lancet* 2001;357(9258):752–756.

Plaut TF, Howell T, Walsh S, Pastor M, Jones T. A systems approach to asthma care. *Manag Care Q* 1996;4(3):6–18.

Plaza V, Serrano J, Picado C, Sanchis J. Frequency and clinical characteristics of rapid-onset fatal and near-fatal asthma. *Eur Respir J* 2002;19(5):846–852.

Pleskow W, LaForce CF, Yegen U, Matos D, Della Cioppa G. Formoterol delivered via the dry powder Aerolizer inhaler versus albuterol MDI and placebo in mild-to-moderate asthma: a randomized, double-blind, double-dummy trial. *J Asthma* 2003;40(5):505–514.

Pleskow WW, Nelson HS, Schaefer K, Claus R, Roach JM. Pairwise comparison of levalbuterol versus racemic albuterol in the treatment of moderate-to-severe asthma. *Allergy Asthma Proc* 2004;25(6):429–436.

Plint AC, Osmond MH, Klassen TP. The efficacy of nebulized racemic epinephrine in children with acute asthma: a randomized, double-blind trial. *Acad Emerg Med* 2000;7(10):1097–1103.

Plotnick LH, Ducharme FM. Should inhaled anticholinergics be added to beta<sub>2</sub> agonists for treating acute childhood and adolescent asthma? A systematic review. *BMJ* 1998;317(7164):971–977.

Plotnick LH, Ducharme FM. Acute asthma in children and adolescents: should inhaled anticholinergics be added to beta(2)-agonists? *Am J Respir Med* 2003;2(2):109–115.

Pohunek P, Kucera P, Sukova B, Votava F, Zikan J. Serum ECP taken in the acute episode of bronchial obstruction can predict the development of bronchial asthma in young children. *Allergy Asthma Proc* 2001;22(2):75–79.

Pohunek P, Matulka M, Rybnicek O, Kopriva F, Honomichlova H, Svobodova T. Dose-related efficacy and safety of formoterol (Oxis) Turbuhaler compared with salmeterol Diskhaler in children with asthma. *Pediatr Allergy Immunol* 2004;15(1):32–39.

Polasani R, Melgar L, Reisman RE, Ballow M. Hot dog vapor-induced status asthmaticus. *Ann Allergy Asthma Immunol* 1997;78(1):35–36.

Pollack CV Jr, Pollack ES, Baren JM, Smith SR, Woodruff PG, Clark S, Camargo CA, Multicenter Airway Research Collaboration Investigators. A prospective multicenter study of patient factors associated with hospital admission from the emergency department among children with acute asthma. *Arch Pediatr Adolesc Med* 2002;156(9):934–940.

Ponikau JU, Sherris DA, Kephart GM, Kern EB, Gaffey TA, Tarara JE, Kita H. Features of airway remodeling and eosinophilic inflammation in chronic rhinosinusitis: is the histopathology similar to asthma? *J Allergy Clin Immunol* 2003;112(5):877–882.

Ponsonby AL, Couper D, Dwyer T, Carmichael A, Kemp A, Cochrane J. The relation between infant indoor environment and subsequent asthma. *Epidemiology* 2000;11(2):128–135.

Ponsonby AL, Dwyer T, Kemp A, Couper D, Cochrane J, Carmichael A. A prospective study of the association between home gas appliance use during infancy and subsequent dust mite sensitization and lung function in childhood. *Clin Exp Allergy* 2001;31(10):1544–1552.

Ponsonby AL, Kemp A, Dwyer T, Carmichael A, Couper D, Cochrane J. Feather bedding and house dust mite sensitization and airway disease in childhood. *J Clin Epidemiol* 2002;55(6):556–562.

Ponsonby AL, Dwyer T, Trevillian L, Kemp A, Cochrane J, Couper D, Carmichael A. The bedding environment, sleep position, and frequent wheeze in childhood. *Pediatrics* 2004;113(5):1216–1222.

Pont LG, Denig P, van der Molen T, van der Veen WJ, Haaijer-Ruskamp FM. Validity of performance indicators for assessing prescribing quality: the case of asthma. *Eur J Clin Pharmacol* 2004;59(11):833–840.

Popplewell EJ, Innes VA, Lloyd-Hughes S, Jenkins EL, Khdir K, Bryant TN, Warner JO, Warner JA. The effect of high-efficiency and standard vacuum-cleaners on mite, cat and dog allergen levels and clinical progress. *Pediatr Allergy Immunol* 2000;11(3):142–148.

Portel L, Hilbert G, Gruson D, Favier JC, Gbikpi-Benissan G, Cardinaud JP. Malignant hyperthermia and neuroleptic malignant syndrome in a patient during treatment for acute asthma. *Acta Anaesthesiol Scand* 1999;43(1):107–110.

Porter RS, Nester, Braitman LE, Geary U, Dalsey WC. Intravenous magnesium is ineffective in adult asthma, a randomized trial. *Eur J Emerg Med* 2001;8(1):9–15.

Porter SC. Patients as experts: a collaborative performance support system. *Proc AMIA Symp* 2001;548–552.

Postma DS, Sevette C, Martinat Y, Schlosser N, Aumann J, Kafe H. Treatment of asthma by the inhaled corticosteroid ciclesonide given either in the morning or evening. *Eur Respir J* 2001;17(6):1083–1088.

Powell CV, Maskell GR, Marks MK, South M, Robertson CF. Successful implementation of spacer treatment guideline for acute asthma. *Arch Dis Child* 2001;84(2):142–146.

Powell CV, Kelly AM, Kerr D. Lack of agreement in classification of the severity of acute asthma between emergency physician assessment and classification using the National Asthma Council Australia guidelines (1998). *Emerg Med (Fremantle)* 2003;15(1):49–53.

Powell H Gibson PG. Options for self-management education for adults with asthma. *Cochrane Database Syst Rev* 2003;(1):CD004107.

Powell H, Gibson PG. Inhaled corticosteroid doses in asthma: an evidence-based approach. *Med J Aust* 2003;178(5):223–225.

Powell H, Gibson PG. Initial starting dose of inhaled corticosteroids in adults with asthma: a systematic review. *Thorax* 2004;59(12):1041–1045.

Pradel FG, Hartzema AG, Bush PJ. Asthma self-management: the perspective of children. *Patient Educ Couns* 2001;45(3):199–209.

Premaratne UN, Sterne JA, Marks GB, Webb JR, Azima H, Burney PG. Clustered randomised trial of an intervention to improve the management of asthma: Greenwich asthma study. *BMJ* 1999;318(7193):1251–1255.

Pretorius E. Corticosteroids, depression and the role of serotonin. *Rev Neurosci* 2004;15(2):109–116.

Price D, Haughney J, Duerden M, Nicholls C, Moseley C. The cost effectiveness of chlorofluorocarbon-free beclomethasone dipropionate in the treatment of chronic asthma: a cost model based on a 1-year pragmatic, randomised clinical study. *Pharmacoeconomics* 2002;20(10):653–664.

Price D, Dutchman D, Mawson A, Bodalia B, Duggan S, Todd P. Early asthma control and maintenance with eformoterol following reduction of inhaled corticosteroid dose. *Thorax* 2002;57(9):791–798.

Price DB, Hernandez D, Magyar P, Fiterman J, Beeh KM, James IG, Konstantopoulos S, Rojas R, van Noord JA, Pons M, et al.; Clinical Outcomes with Montelukast as a Partner Agent to Corticosteroid Therapy (COMPACT) International Study Group. Randomised controlled trial of montelukast plus inhaled budesonide versus double dose inhaled budesonide in adult patients with asthma. *Thorax* 2003;58(3):211–216.

Price J, Lenney W, Duncan C, Green L, Flood Y, Daley-Yates P, Barnacle H, Efthimiou J. HPA-axis effects of nebulised fluticasone propionate compared with oral prednisolone in childhood asthma. *Respir Med* 2002;96(8):625–631.

Price MR, Bratton DL, Klinnert MD. Caregiver negative affect is a primary determinant of caregiver report of pediatric asthma quality of life. *Ann Allergy Asthma Immunol* 2002;89(6):572–577.

Prieto L, Gutierrez V, Torres V, Uixera S, Marin J. Effect of salmeterol on seasonal changes in airway responsiveness and exhaled nitric oxide in pollen-sensitive asthmatic subjects. *Chest* 2002;122(3):798–805.

Prieto L, Bruno L, Gutierrez V, Uixera S, Perez-Frances C, Lanuza A, Ferrer A. Airway responsiveness to adenosine 5'-monophosphate and exhaled nitric oxide measurements: predictive value as markers for reducing the dose of inhaled corticosteroids in asthmatic subjects. *Chest* 2003;124(4):1325–1333.

Prieto L, Gutierrez V, Perez-Frances C, Badiola C, Lanuza A, Bruno L, Ferrer A. Effect of fluticasone propionate-salmeterol therapy on seasonal changes in airway responsiveness and exhaled nitric oxide levels in patients with pollen-induced asthma. *Ann Allergy Asthma Immunol* 2005;95(5):452–461.

Prosperini G, Rajakulasingam K, Cacciola RR, Spicuzza L, Rorke S, Holgate ST, Di Maria GU, Polosa R. Changes in sputum counts and airway hyperresponsiveness after budesonide: monitoring anti-inflammatory response on the basis of surrogate markers of airway inflammation. *J Allergy Clin Immunol* 2002;110(6):855–861.

Put C, van den Bergh O, Demedts M, Verleden G. A study of the relationship among self-reported noncompliance, symptomatology, and psychological variables in patients with asthma. *J Asthma* 2000;37(6):503–510.

Put C, van den Bergh O, Lemaigre V, Demedts M, Verleden G. Evaluation of an individualised asthma programme directed at behavioural change. *Eur Respir J* 2003;21(1):109–115.

Quadrelli SA, Roncoroni AJ. Is asthma in the elderly really different? *Respiration* 1998;65(5):347–353.

Qureshi F, Zaritsky A, Lakkis H. Efficacy of nebulized ipratropium in severely asthmatic children. *Ann Emerg Med* 1997;29(2):205–211.

Qureshi F, Pestian J, Davis P, Zaritsky A. Effect of nebulized ipratropium on the hospitalization rates of children with asthma. *N Engl J Med* 1998;339(15):1030–1035.

Qureshi F, Zaritsky A, Poirier MP. Comparative efficacy of oral dexamethasone versus oral prednisone in acute pediatric asthma. *J Pediatr* 2001;139(1):20–26.

Rabbat A, Laaban JP, Boussairi A, Rochemaure J. Hyperlactatemia during acute severe asthma. *Intensive Care Med* 1998;24(4):304–312.

Rabe KF, Pizzichini E, Stallberg B, Romero S, Balanzat AM, Atienza T, Lier PA, Jorup C. Budesonide/formoterol in a single inhaler for maintenance and relief in mild-to-moderate asthma: a randomized, double-blind trial. *Chest* 2006;129(2):246–256.

Rachelefsky G. Treating exacerbations of asthma in children: the role of systemic corticosteroids. *Pediatrics* 2003;112(2):382–397.

Radeos MS, Leak LV, Lugo BP, Hanrahan JP, Clark S, Camargo CA Jr. Risk factors for lack of asthma self-management knowledge among ED patients not on inhaled steroids. *Am J Emerg Med* 2001;19(4):253–259.

Radon K, Busching K, Heinrich J, Wichmann HE, Jorres RA, Magnussen H, Nowak D. Passive smoking exposure: a risk factor for chronic bronchitis and asthma in adults? *Chest* 2002;122(3):1086–1090.

Ragab S, Parikh A, Darby YC, Scadding GK. An open audit of montelukast, a leukotriene receptor antagonist, in nasal polyposis associated with asthma. *Clin Exp Allergy* 2001;31(9):1385–1391.

Raherison C, Tunon-de-lara JM, Vernejoux JM, Taylard A. Practical evaluation of asthma exacerbation self-management in children and adolescents. *Respir Med* 2000;94(11):1047–1052.

Raimondi AC, Schottlender J, Lombardi D, Molfino NA. Treatment of acute severe asthma with inhaled albuterol delivered via jet nebulizer, metered dose inhaler with spacer, or dry powder. *Chest* 1997;112(1):24–28.

Ralston ME, Euwema MS, Knecht KR, Ziolkowski TJ, Coakley TA, Cline SM. Comparison of levalbuterol and racemic albuterol combined with ipratropium bromide in acute pediatric asthma: a randomized controlled trial. *J Emerg Med* 2005;29(1):29–35.

Ram FS, Wright J, Brocklebank D, White JE. Systematic review of clinical effectiveness of pressurised metered dose inhalers versus other hand held inhaler devices for delivering beta (2)agonists bronchodilators in asthma. *BMJ* 2001;323(7318):901–905.

Ram FS, Holloway EA, Jones PW. Breathing retraining for asthma. *Respir Med* 2003;97(5):501–507.

Ram FS. Clinical efficacy of inhaler devices containing beta(2)-agonist bronchodilators in the treatment of asthma: Cochrane Systematic Review and meta-analysis of more than 100 randomized, controlled trials. *Am J Respir Med* 2003;2(4):349–365.

Ram FS, Wellington SR, Barnes NC. Inspiratory muscle training for asthma. *Cochrane Database Syst Rev* 2003;(4):CD003792.

Ram FS, Cates CJ, Ducharme FM. Long-acting beta<sub>2</sub>-agonists versus anti-leukotrienes as add-on therapy to inhaled corticosteroids for chronic asthma. *Cochrane Database Syst Rev* 2005;(1):CD003137.

Ram FS, Wellington S, Rowe BH, Wedzicha JA. Non-invasive positive pressure ventilation for treatment of respiratory failure due to severe acute exacerbations of asthma. *Cochrane Database Syst Rev* 2005;(1):CD004360.

Ramirez EG. Management of asthma emergencies. *Nurs Clin North Am* 2003;38(4):713–724.

Ramon M, Juan G, Ciscar MA, Marti-Bonmati E, Morcillo EJ, Marin J. Influence of low temperature on bronchodilatation induced by terbutaline administered by metered dose or dry powder inhalers in asthmatics. *Fundam Clin Pharmacol* 2000;14(2):133–138.

Ramsay SG, Dagg KD, McKay IC, Lipworth BJ, McSharry C, Thomson NC. Investigations on the renin-angiotensin system in acute severe asthma. *Eur Respir J* 1997;10(12):2766–2771.

Ramsey CD, Celedon JC, Sredl DL, Weiss ST, Cloutier MM. Predictors of disease severity in children with asthma in Hartford, Connecticut. *Pediatr Pulmonol* 2005;39(3):268–275.

Rao S, Raju P, Smina M, Upadhy A, Amoateng-Adjepong Y, Manthous CA. Gender and status asthmaticus. *J Asthma* 2003;40(7):763–767.

Rask-Andersen A, Boman J, Grangsjo A, Silverdal M, Lindberg M, Lundberg M, Svensson L. Asthma, skin symptoms, and allergy in a condom factory. *Allergy* 2000;55(9):836–841.

Rasmussen LM, Phanareth K, Nolte H, Backer V. Internet-based monitoring of asthma: a long-term, randomized clinical study of 300 asthmatic subjects. *J Allergy Clin Immunol* 2005;115(6):1137–1142.

Ratcliffe J, Van Haselen R, Buxton M, Hardy K, Colehan J, Partridge M. Assessing patients' preferences for characteristics associated with homeopathic and conventional treatment of asthma: a conjoint analysis study. *Thorax* 2002;57(6):503–508.

Ratima MM, Fox C, Fox B, Te KH, Gemmell T, Slater T, D'Souza WJ, Pearce NE. Long-term benefits for Maori of an asthma self-management program in a Maori community which takes a partnership approach. *Aust N Z J Public Health* 1999;23(6):601–605.

Raymond D, Henry RL, Higginbotham N, Coory M. Predicting readmission to hospital with asthma. *J Paediatr Child Health* 1998;34(6):534–538.

Raynor DK, Savage I, Knapp P, Henley J. We are the experts: people with asthma talk about their medicine information needs. *Patient Educ Couns* 2004;53(2):167–174.

Ream RS, Loftis LL, Albers GM, Becker BA, Lynch RE, Mink RB. Efficacy of IV theophylline in children with severe status asthmaticus. *Chest* 2001;119(5):1480–1488.

Recer GM. A review of the effects of impermeable bedding encasements on dust-mite allergen exposure and bronchial hyper-responsiveness in dust-mite-sensitized patients. *Clin Exp Allergy* 2004;34(2):268–275.

Reddel H, Ware S, Marks G, Salome C, Jenkins C, Woolcock A. Differences between asthma exacerbations and poor asthma control. *Lancet* 1999;353(9150):364–369.

Reddel HK, Jenkins CR, Marks GB, Ware SI, Xuan W, Salome CM, Badcock CA, Woolcock AJ. Optimal asthma control, starting with high doses of inhaled budesonide. *Eur Respir J* 2000;16(2):226–235.

Reddel HK, Marks GB, Jenkins CR. When can personal best peak flow be determined for asthma action plans? *Thorax* 2004;59(11):922–924.

Redline S, Larkin EK, Kercsmar C, Berger M, Siminoff LA. Development and validation of school-based asthma and allergy screening instruments for parents and students. *Ann Allergy Asthma Immunol* 2003;90(5):516–528.

Reed CE, Offord KP, Nelson HS, Li JT, Tinkelman DG. Aerosol beclomethasone dipropionate spray compared with theophylline as primary treatment for chronic mild-to-moderate asthma. The American Academy of Allergy, Asthma and Immunology Beclomethasone Dipropionate-Theophylline Study Group. *J Allergy Clin Immunol* 1998;101(1 Pt 1):14–23.

Reid D, Abramson M, Raven J, Walters HE. Management and treatment perceptions among young adults with asthma in Melbourne: the Australian experience from the European Community Respiratory Health Survey. *Respirology* 2000;5(3):281–287.

Reid J, Marciniuk DD, Cockcroft DW. Asthma management in the emergency department. *Can Respir J* 2000;7(3):255–260.

Reiss TF, Chervinsky P, Dockhorn RJ, Shingo S, Seidenberg B, Edwards TB. Montelukast, a once-daily leukotriene receptor antagonist, in the treatment of chronic asthma: a multicenter, randomized, double-blind trial. Montelukast Clinical Research Study Group. *Arch Intern Med* 1998;158(11):1213–1220.

Remes ST, Castro-Rodriguez JA, Holberg CJ, Martinez FD, Wright AL. Dog exposure in infancy decreases the subsequent risk of frequent wheeze but not of atopy. *J Allergy Clin Immunol* 2001;108(4):509–515.

Reuther I, Aldridge D. Qigong Yangsheng as a complementary therapy in the management of asthma: a single-case appraisal. *J Altern Complement Med* 1998;4(2):173–183.

Revich LR, Grinspon SG, Paredes C, Moreno E, Gene R, Jorge MA. Respiratory effects of halothane in a patient with refractory status asthmaticus. *Pulm Pharmacol Ther* 2001;14(6):455–460.

Reznik M, Ozuah PO, Franco K, Cohen R, Motlow F. Use of complementary therapy by adolescents with asthma. *Arch Pediatr Adolesc Med* 2002;156(10):1042–1044.

Reznik M, Sharif I, Ozuah PO. Use of interactive videoconferencing to deliver asthma education to inner-city immigrants. *J Telemed Telecare* 2004;10(2):118–120.

Rho DS. Acute angle-closure glaucoma after albuterol nebulizer treatment. *Am J Ophthalmol* 2000;130(1):123–124.

Riccioli G, Vecchia RD, D'Orazio N, Sensi S, Guagnano MT. Comparison of montelukast and budesonide on bronchial reactivity in subjects with mild-moderate persistent asthma. *Pulm Pharmacol Ther* 2003;16(2):111–114.

Rice-McDonald G, Bowler S, Staines G, Mitchell C. Doubling daily inhaled corticosteroid dose is ineffective in mild to moderately severe attacks of asthma in adults. *Intern Med J* 2005;35(12):693–698.

Rich M, Lamola S, Amory C, Schneider L. Asthma in life context: Video Intervention/Prevention Assessment (VIA). *Pediatrics* 2000;105(3 Pt 1):469–477.

Rich M, Lamola S, Gordon J, Chalfen R. Video intervention/prevention assessment: a patient-centered methodology for understanding the adolescent illness experience. *J Adolesc Health* 2000;27(3):155–165.

Richardson L, Jagoda A. Management of life-threatening asthma in the emergency department. *Mt Sinai J Med* 1997;64(4–5):275–282.

Richter B, Bender R, Berger M. Effects of on-demand beta<sub>2</sub>-agonist inhalation in moderate-to-severe asthma. A randomized controlled trial. *J Intern Med* 2000;247(6):657–666.

Richter K, Janicki S, Jorres RA, Magnussen H. Acute protection against exercise-induced bronchoconstriction by formoterol, salmeterol and terbutaline. *Eur Respir J* 2002;19(5):865–871.

Riekert KA, Butz AM, Eggleston PA, Huss K, Winkelstein M, Rand CS. Caregiver-physician medication concordance and undertreatment of asthma among inner-city children. *Pediatrics* 2003;111(3):e214–e220.

Rietveld S, Prins PJ. The relationship between negative emotions and acute subjective and objective symptoms of childhood asthma. *Psychol Med* 1998;28(2):407–415.

Rijssenbeek-Nouwens LH, Oosting AJ, De Monchy JG, Bregman I, Postma DS, Bruin-Weller MS. The effect of anti-allergic mattress encasings on house dust mite-induced early- and late-airway reactions in asthmatic patients. A double-blind, placebo-controlled study. *Clin Exp Allergy* 2002;32(1):117–125.

Rimington LD, Davies DH, Lowe D, Pearson MG. Relationship between anxiety, depression, and morbidity in adult asthma patients. *Thorax* 2001;56(4):266–271.

Ringbaek T, Viskum K. Is there any association between inhaled ipratropium and mortality in patients with COPD and asthma? *Respir Med* 2003;97(3):264–272.

Ringdal N, Lundback B, Alton M, Rak S, Eivindson A, Bratten G, Kjaersgaard P. Comparable effects of inhaled fluticasone propionate and budesonide on the HPA-axis in adult asthmatic patients. *Respir Med* 2000;94(5):482–489.

Ringdal N, Eliraz A, Pruzinec R, Weber HH, Mulder PG, Akveld M, Bateman ED. The salmeterol/fluticasone combination is more effective than fluticasone plus oral montelukast in asthma. *Respir Med* 2003;97(3):234–241.

Ringsberg KC, Timpka T. Clinical health education for patients with asthma-like symptoms but negative asthma tests. *Allergy* 2001;56(11):1049–1054.

Rio-Navarro B, Gazca-Aguilar A, Quibrera Matienzo JA, Rodriguez GY, Sienra-Monge JJ. Metabolic and electrocardiographic effects of albuterol in pediatric asthmatic patients treated in an emergency room setting. *Allergol Immunopathol (Madr)* 1999;27(1):18–23.

Rio-Navarro BE, Sienra-Monge JJ, Alvarez-Amador M, Reyes-Ruiz N, Arevalo-Salas A, Berber A. Serum potassium levels, CPK-MB and ECG in children suffering asthma treated with beclomethasone or beclomethasone-salmeterol. *Allergol Immunopathol (Madr)* 2001;29(1):16–21.

Rishani R, El Khatib M, Mroueh S. Treatment of severe status asthmaticus with nitric oxide. *Pediatr Pulmonol* 1999;28(6):451–453.

Rittenhouse DR, Robinson JC. Improving quality in Medicaid: the use of care management processes for chronic illness and preventive care. *Med Care* 2006;44(1):47–54.

Ritz M, Thorens JB, Arnold-Ketterer M, Chevrolet JC. Effects of inhaled salmeterol and salbutamol (albuterol) on morning dips compared in intensive care patients recovering from an acute severe asthma attack. *Intensive Care Med* 1997;23(12):1225–1230.

Ritz T, Steptoe A. Emotion and pulmonary function in asthma: reactivity in the field and relationship with laboratory induction of emotion. *Psychosom Med* 2000;62(6):808–815.

Ritz T. Relaxation therapy in adult asthma. Is there new evidence for its effectiveness? *Behav Modif* 2001;25(4):640–666.

Ritz T, Dahme B, Roth WT. Behavioral interventions in asthma: biofeedback techniques. *J Psychosom Res* 2004;56(6):711–720.

Rivera ML, Kim TY, Stewart GM, Minasyan L, Brown L. Albuterol nebulized in heliox in the initial ED treatment of pediatric asthma: a blinded, randomized controlled trial. *Am J Emerg Med* 2006;24(1):38–42.

Roberts G, Newsom D, Gomez K, Raffles A, Saglani S, Begent J, Lachman P, Sloper K, Buchdahl R, Habel A. Intravenous salbutamol bolus compared with an aminophylline infusion in children with severe asthma: a randomised controlled trial. *Thorax* 2003;58(4):306–310.

Roberts JL, Janson S, Gillen M, Flattery J, Harrison R. Processes of care for individuals with work related asthma: treatment characteristics and impact of asthma on work. *AAOHN J* 2004;52(8):327–337.

Roberts JS, Bratton SL, Brogan TV. Acute severe asthma: differences in therapies and outcomes among pediatric intensive care units. *Crit Care Med* 2002;30(3):581–585.

Robertson CF, Norden MA, Fitzgerald DA, Connor FL, Van Asperen PP, Cooper PJ, Francis PW, Allen HD. Treatment of acute asthma: salbutamol via jet nebuliser vs spacer and metered dose inhaler. *J Paediatr Child Health* 1998;34(2):142–146.

Robertson R, Osman LM, Douglas JG. Adult asthma review in general practice: nurses' perception of their role. *Fam Pract* 1997;14(3):227–232.

Robichaud P, Laberge A, Allen MF, Boutin H, Rossi C, Lajoie P, Boulet LP. Evaluation of a program aimed at increasing referrals for asthma education of patients consulting at the emergency department for acute asthma. *Chest* 2004;126(5):1495–1501.

Robinson DS, Campbell D, Barnes PJ. Addition of leukotriene antagonists to therapy in chronic persistent asthma: a randomised double-blind placebo-controlled trial. *Lancet* 2001;357(9273):2007–2011.

Rocco PL, Barboni E, Balestrieri M. Psychiatric symptoms and psychological profile of patients with near fatal asthma: absence of positive findings. *Psychother Psychosom* 1998;67(2):105–108.

Rodrigo C, Rodrigo G. Salbutamol treatment of acute severe asthma in the ED: MDI versus hand-held nebulizer. *Am J Emerg Med* 1998;16(7):637–642.

Rodrigo C, Rodrigo G. Therapeutic response patterns to high and cumulative doses of salbutamol in acute severe asthma. *Chest* 1998;113(3):593–598.

Rodrigo C, Rodrigo G. Subarachnoid hemorrhage following permissive hypercapnia in a patient with severe acute asthma. *Am J Emerg Med* 1999;17(7):697–699.

Rodrigo G, Rodrigo C. A new index for early prediction of hospitalization in patients with acute asthma. *Am J Emerg Med* 1997;15(1):8–13.

Rodrigo G, Rodrigo C. Effect of age on bronchodilator response in acute severe asthma treatment. *Chest* 1997;112(1):19–23.

Rodrigo G, Rodrigo C. Inhaled flunisolide for acute severe asthma. *Am J Respir Crit Care Med* 1998;157(3 Pt 1):698–703.

- Rodrigo G, Rodrigo C. Early prediction of poor response in acute asthma patients in the emergency department. *Chest* 1998;114(4):1016–1021.
- Rodrigo G, Rodrigo C, Burschtin O. A meta-analysis of the effects of ipratropium bromide in adults with acute asthma. *Am J Med* 1999;107(4):363–370.
- Rodrigo G, Rodrigo C. Corticosteroids in the emergency department therapy of acute adult asthma: an evidence-based evaluation. *Chest* 1999;116(2):285–295.
- Rodrigo G, Rodrigo C, Burschtin O. Efficacy of magnesium sulfate in acute adult asthma: a meta-analysis of randomized trials. *Am J Emerg Med* 2000;18(2):216–221.
- Rodrigo G, Rodrigo C, Pollack C, Travers A. Helium-oxygen mixture for nonintubated acute asthma patients. *Cochrane Database Syst Rev* 2001;(1):CD002884.
- Rodrigo G, Pollack C, Rodrigo C, Rowe BH. Heliox for nonintubated acute asthma patients. *Cochrane Database Syst Rev* 2003;(4):CD002884.
- Rodrigo GJ, Rodrigo C. First-line therapy for adult patients with acute asthma receiving a multiple-dose protocol of ipratropium bromide plus albuterol in the emergency department. *Am J Respir Crit Care Med* 2000;161(6):1862–1868.
- Rodrigo GJ, Rodrigo C. Rapid-onset asthma attack: a prospective cohort study about characteristics and response to emergency department treatment. *Chest* 2000;118(6):1547–1552.
- Rodrigo GJ, Rodrigo C. Aerosol and inhaled therapy in treatment of acute adult airway obstruction in the emergency department. *Respir Care Clin N Am* 2001;7(2):215–231, v.
- Rodrigo GJ, Rodrigo C. Continuous vs intermittent beta-agonists in the treatment of acute adult asthma: a systematic review with meta-analysis. *Chest* 2002;122(1):160–165.
- Rodrigo GJ, Rodrigo C. The role of anticholinergics in acute asthma treatment: an evidence-based evaluation. *Chest* 2002;121(6):1977–1987.
- Rodrigo GJ, Rodrigo C, Pollack CV, Rowe B. Use of helium-oxygen mixtures in the treatment of acute asthma: a systematic review. *Chest* 2003;123(3):891–896.
- Rodrigo GJ. Inhaled therapy for acute adult asthma. *Curr Opin Allergy Clin Immunol* 2003;3(3):169–175.
- Rodrigo GJ, Rodriguez VM, Peregalli V, Rodrigo C. Effects of short-term 28% and 100% oxygen on PaCO<sub>2</sub> and peak expiratory flow rate in acute asthma: a randomized trial. *Chest* 2003;124(4):1312–1317.
- Rodrigo GJ, Rodrigo C, Hall JB. Acute asthma in adults: a review. *Chest* 2004;125(3):1081–1102.
- Rodrigo GJ, Castro-Rodriguez JA. Anticholinergics in the treatment of children and adults with acute asthma: a systematic review with meta-analysis. *Thorax* 2005;60(9):740–746. Epub July 2005.

Rodrigo GJ. Comparison of inhaled fluticasone with intravenous hydrocortisone in the treatment of adult acute asthma. *Am J Respir Crit Care Med* 2005;171(11):1231–1236.

Rodrigo GJ, Rodrigo C. Elevated plasma lactate level associated with high dose inhaled albuterol therapy in acute severe asthma. *Emerg Med J* 2005;22(6):404–408.

Rodrigues RG. Steroids and antibiotics for treatment of acute asthma exacerbations in African-American children. *J Natl Med Assoc* 2004;96(7):945–947.

Rodriguez Vazquez JC, Pino Alfonso PP, Gassiot NC, Paez P, I. Usefulness of inhaled furosemide in a bronchial asthma attack. *J Investig Allergol Clin Immunol* 1998;8(5):290–293.

Roghmann MC, Sexton M. Adherence to asthma guidelines in general practices. *J Asthma* 1999;36(4):381–387.

Rohatagi S, Calic F, Harding N, Ozoux ML, Bouriot JP, Kirkesseli S, DeLeij L, Jensen BK. Pharmacokinetics, pharmacodynamics, and safety of inhaled cyclosporin A (ADI628) after single and repeated administration in healthy male and female subjects and asthmatic patients. *J Clin Pharmacol* 2000;40(11):1211–1226.

Rolnick SJ, Flores SK, O'Fallon AM, Vandenburg NR. The implementation of clinical guidelines in a managed care setting: implications for children with special health care needs. *Manag Care Q* 2000;8(2):29–38.

Romano MJ, Hernandez J, Gaylor A, Howard S, Knox R. Improvement in asthma symptoms and quality of life in pediatric patients through specialty care delivered via telemedicine. *Telemed J E Health* 2001;7(4):281–286.

Rome LA, Lippmann ML, Dalsey WC, Taggart P, Pomerantz S. Prevalence of cocaine use and its impact on asthma exacerbation in an urban population. *Chest* 2000;117(5):1324–1329.

Romieu I, Sienra-Monge JJ, Ramirez-Aguilar M, Tellez-Rojo MM, Moreno-Macias H, Reyes-Ruiz NI, Rio-Navarro BE, Ruiz-Navarro MX, Hatch G, Slade R, et al. Antioxidant supplementation and lung functions among children with asthma exposed to high levels of air pollutants. *Am J Respir Crit Care Med* 2002;166(5):703–709.

Ronchetti R, Indinnimeo L, Bonci E, Corrias A, Evans D, Hindi-Alexander M, Midulla F, Pulejo R, Villa MP. Asthma self-management programmes in a population of Italian children: a multicentric study. Italian Study Group on Asthma Self-Management Programmes. *Eur Respir J* 1997;10(6):1248–1253.

Ronmark E, Jonsson E, Platts-Mills T, Lundback B. Different pattern of risk factors for atopic and nonatopic asthma among children—report from the Obstructive Lung Disease in Northern Sweden Study. *Allergy* 1999;54(9):926–935.

Ronmark E, Jogi R, Lindqvist A, Haugen T, Meren M, Loit HM, Sairanen U, Sandahl A, Lundback B. Correct use of three powder inhalers: comparison between Diskus, Turbuhaler, and Easyhaler. *J Asthma* 2005;42(3):173–178.

Rorke S, Jennison S, Jeffs JA, Sampson AP, Arshad H, Holgate ST. Role of cysteinyl leukotrienes in adenosine 5'-monophosphate induced bronchoconstriction in asthma. *Thorax* 2002;57(4):323–327.

Rosas I, McCartney HA, Payne RW, Calderon C, Lacey J, Chapela R, Ruiz-Velazco S. Analysis of the relationships between environmental factors (aeroallergens, air pollution, and weather) and asthma emergency admissions to a hospital in Mexico City. *Allergy* 1998;53(4):394–401.

Rose D, Garwick A. Urban American Indian family caregivers' perceptions of barriers to management of childhood asthma. *J Pediatr Nurs* 2003;18(1):2–11.

Rose JS, Panacek EA, Miller P. Prospective randomized trial of heliox-driven continuous nebulizers in the treatment of asthma in the emergency department. *J Emerg Med* 2002;22(2):133–137.

Rosenhall L, Elvstrand A, Tilling B, Vinge I, Jemsby P, Stahl E, Jerre F, Bergqvist PB. One-year safety and efficacy of budesonide/formoterol in a single inhaler (Symbicort Turbuhaler) for the treatment of asthma. *Respir Med* 2003;97(6):702–708.

Rosenstreich DL, Eggleston P, Kattan M, Baker D, Slavin RG, Gergen P, Mitchell H, McNiff-Mortimer K, Lynn H, Ownby D, et al. The role of cockroach allergy and exposure to cockroach allergen in causing morbidity among inner-city children with asthma. *N Engl J Med* 1997;336(19):1356–1363.

Rosi E, Lanini B, Ronchi MC, Romagnoli I, Stendardi L, Bianchi R, Zonefrati R, Duranti R, Scano G. Dyspnea, respiratory function and sputum profile in asthmatic patients during exacerbations. *Respir Med* 2002;96(9):745–750.

Ross MA, Curtis L, Scheff PA, Hryhorczuk DO, Ramakrishnan V, Wadden RA, Persky VW. Association of asthma symptoms and severity with indoor bioaerosols. *Allergy* 2000;55(8):705–711.

Ross MA, Persky VW, Scheff PA, Chung J, Curtis L, Ramakrishnan V, Wadden RA, Hryhorczuk DO. Effect of ozone and aeroallergens on the respiratory health of asthmatics. *Arch Environ Health* 2002;57(6):568–578.

Ross RN, Nelson HS, Finegold I. Effectiveness of specific immunotherapy in the treatment of asthma: a meta-analysis of prospective, randomized, double-blind, placebo-controlled studies. *Clin Ther* 2000;22(3):329–341.

Rossi A, Ganassini A, Polese G, Grassi V. Pulmonary hyperinflation and ventilator-dependent patients. *Eur Respir J* 1997;10(7):1663–1674.

Rossinen J, Partanen J, Stenius-Aarniala B, Nieminen MS. Salbutamol inhalation has no effect on myocardial ischaemia, arrhythmias and heart-rate variability in patients with coronary artery disease plus asthma or chronic obstructive pulmonary disease. *J Intern Med* 1998;243(5):361–366.

Rossiter LF, Whitehurst-Cook MY, Small RE, Shasky C, Bovbjerg VE, Penberthy L, Okasha A, Green J, Ibrahim IA, Yang S, et al. The impact of disease management on outcomes and cost of care: a study of low-income asthma patients. *Inquiry* 2000;37(2):188–202.

Roszman L. Defecation-induced bronchospasm. *J Emerg Med* 2000;18(2):195–197.

Roter DL, Hall JA, Merisca R, Nordstrom B, Cretin D, Svarstad B. Effectiveness of interventions to improve patient compliance: a meta-analysis. *Med Care* 1998;36(8):1138–1161.

Roth MT, Westman EC. Asthma exacerbation after administration of nicotine nasal spray for smoking cessation. *Pharmacotherapy* 2002;22(6):779–782.

Roux C, Kolta S, Desfougeres JL, Minini P, Bidat E. Long-term safety of fluticasone propionate and nedocromil sodium on bone in children with asthma. *Pediatrics* 2003;111(6 Pt 1):e706–e713.

Rowe BH, Bota GW, Fabris L, Therrien SA, Milner RA, Jacono J. Inhaled budesonide in addition to oral corticosteroids to prevent asthma relapse following discharge from the emergency department: a randomized controlled trial. *JAMA* 1999;281(22):2119–2126.

Rowe BH, Spooner C, Ducharme FM, Bretzlaff JA, Bota GW. Early emergency department treatment of acute asthma with systemic corticosteroids. *Cochrane Database Syst Rev* 2000;(2):CD002178.

Rowe BH, Spooner CH, Ducharme FM, Bretzlaff JA, Bota GW. Corticosteroids for preventing relapse following acute exacerbations of asthma. *Cochrane Database Syst Rev* 2000;(2):CD000195.

Rowe BH, Bretzlaff JA, Bourdon C, Bota GW, Camargo CA Jr. Magnesium sulfate for treating exacerbations of acute asthma in the emergency department. *Cochrane Database Syst Rev* 2000;(2):CD001490.

Rowe BH, Bretzlaff JA, Bourdon C, Bota GW, Camargo CA Jr. Intravenous magnesium sulfate treatment for acute asthma in the emergency department: a systematic review of the literature. *Ann Emerg Med* 2000;36(3):181–190.

Rowe BH, Spooner CH, Ducharme FM, Bretzlaff JA, Bota GW. Corticosteroids for preventing relapse following acute exacerbations of asthma. *Cochrane Database Syst Rev* 2001;(1):CD000195.

Rowe BH, Spooner C, Ducharme FM, Bretzlaff JA, Bota GW. Early emergency department treatment of acute asthma with systemic corticosteroids. *Cochrane Database Syst Rev* 2001;(1):CD002178.

Rowe BH, Edmonds ML, Spooner CH, Camargo CA. Evidence-based treatments for acute asthma. *Respir Care* 2001;46(12):1380–1390.

Rowe BH, Edmonds ML, Spooner CH, Diner B, Camargo CA Jr. Corticosteroid therapy for acute asthma. *Respir Med* 2004;98(4):275–284.

Rowe BH, Camargo CA Jr. The use of magnesium sulfate in acute asthma: rapid uptake of evidence in North American emergency departments. *J Allergy Clin Immunol* 2006;117(1):53–58.

Roy SR, Milgrom H. Management of the acute exacerbation of asthma. *J Asthma* 2003;40(6):593–604.

Roy SR, Milgrom H. Managing outpatient asthma exacerbations. *Curr Allergy Asthma Rep* 2003;3(2):179–189.

Rudd RE, Zobel EK, Fanta CH, Surkan P, Rodriguez-Louis J, Valderrama Y, Daltroy LH. Asthma: in plain language. *Health Promot Pract* 2004;5(3):334–340.

Rumchev K, Spickett J, Bulsara M, Phillips M, Stick S. Association of domestic exposure to volatile organic compounds with asthma in young children. *Thorax* 2004;59(9):746–751.

Rumchev KB, Spickett JT, Bulsara MK, Phillips MR, Stick SM. Domestic exposure to formaldehyde significantly increases the risk of asthma in young children. *Eur Respir J* 2002;20(2):403–408.

Rundell KW, Wilber RL, Szmedra L, Jenkinson DM, Mayers LB, Im J. Exercise-induced asthma screening of elite athletes: field versus laboratory exercise challenge. *Med Sci Sports Exerc* 2000;32(2):309–316.

Rundell KW, Im J, Mayers LB, Wilber RL, Szmedra L, Schmitz HR. Self-reported symptoms and exercise-induced asthma in the elite athlete. *Med Sci Sports Exerc* 2001;33(2):208–213.

Rundell KW, Spiering BA. Inspiratory stridor in elite athletes. *Chest* 2003;123(2):468–474.

Rundell KW, Spiering BA, Evans TM, Baumann JM. Baseline lung function, exercise-induced bronchoconstriction, and asthma-like symptoms in elite women ice hockey players. *Med Sci Sports Exerc* 2004;36(3):405–410.

Rundell KW, Spiering BA, Baumann JM, Evans TM. Effects of montelukast on airway narrowing from eucapnic voluntary hyperventilation and cold air exercise. *Br J Sports Med* 2005;39(4):232–236.

Rupp MT, McCallian DJ, Sheth KK. Developing and marketing a community pharmacy-based asthma management program. *J Am Pharm Assoc (Wash)* 1997;NS37(6):694–699.

Russo MJ, McConnochie KM, McBride JT, Szilagyi PG, Brooks AM, Roghmann KJ. Increase in admission threshold explains stable asthma hospitalization rates. *Pediatrics* 1999;104(3 Pt 1):454–462.

Rutherford C, Mills R, Gibson PG, Price MJ. Improvement in health-related quality of life with fluticasone propionate compared with budesonide or beclomethasone dipropionate in adults with severe asthma. *Respirology* 2003;8(3):371–375.

Rutherford S, Simpson R, Williams G, Mitchell C, McCall B. Relationships between environmental factors and lung function of asthmatic subjects in south east Queensland, Australia. *J Occup Environ Med* 2000;42(9):882–891.

Rutishauser C, Sawyer SM, Bond L, Coffey C, Bowes G. Development and validation of the Adolescent Asthma Quality of Life Questionnaire (AAQOL). *Eur Respir J* 2001;17(1):52–58.

Rydman RJ, Isola ML, Roberts RR, Zalenski RJ, McDermott MF, Murphy DG, McCarren MM, Kampe LM. Emergency Department Observation Unit versus hospital inpatient care for a chronic asthmatic population: a randomized trial of health status outcome and cost. *Med Care* 1998;36(4):599–609.

Rydman RJ, Roberts RR, Albrecht GL, Zalenski RJ, McDermott M. Patient satisfaction with an emergency department asthma observation unit. *Acad Emerg Med* 1999;6(3):178–183.

Rydman RJ, Sonenthal K, Tadimeti L, Butki N, McDermott MF. Evaluating the outcome of two teaching methods of breath actuated inhaler in an inner city asthma clinic. *J Med Syst* 1999;23(5):349–356.

Rylander R, Lin RH. (1 $\beta$ 3)-beta-D-glucan - relationship to indoor air-related symptoms, allergy and asthma. *Toxicology* 2000;152(1–3):47–52.

Sabina AB, Williams AL, Wall HK, Bansal S, Chupp G, Katz DL. Yoga intervention for adults with mild-to-moderate asthma: a pilot study. *Ann Allergy Asthma Immunol* 2005;94(5):543–548.

Sade K, Berkun Y, Dolev Z, Shalit M, Kivity S. Knowledge and expectations of patients receiving aeroallergen immunotherapy. *Ann Allergy Asthma Immunol* 2003;91(5):444–448.

Sahid El-Radhi A, Hogg CL, Bungre JK, Bush A, Corrigan CJ. Effect of oral glucocorticoid treatment on serum inflammatory markers in acute asthma. *Arch Dis Child* 2000;83(2):158–162.

Saini B, Krass I, Armour C. Development, implementation, and evaluation of a community pharmacy-based asthma care model. *Ann Pharmacother* 2004;38(11):1954–1960.

Saito J, Inoue K, Sugawara A, Yoshikawa M, Watanabe K, Ishida T, Ohtsuka Y, Munakata M. Exhaled nitric oxide as a marker of airway inflammation for an epidemiologic study in schoolchildren. *J Allergy Clin Immunol* 2004;114(3):512–516.

Saito Y, Sasaki F, Tanaka I, Sato M, Okazawa M, Sakakibara H, Suetsugu S. Acute severe alcohol-induced bronchial asthma. *Intern Med* 2001;40(7):643–645.

Salisbury C, Francis C, Rogers C, Parry K, Thomas H, Chadwick S, Turton P. A randomised controlled trial of clinics in secondary schools for adolescents with asthma. *Br J Gen Pract* 2002;52(485):988–996.

Salmeron S, Liard R, Elkharrat D, Muir J, Neukirch F, Ellrodt A. Asthma severity and adequacy of management in accident and emergency departments in France: a prospective study. *Lancet* 2001;358(9282):629–635.

Salmun LM, Barlan I, Wolf HM, Eibl M, Twarog FJ, Geha RS, Schneider LC. Effect of intravenous immunoglobulin on steroid consumption in patients with severe asthma: a double-blind, placebo-controlled, randomized trial. *J Allergy Clin Immunol* 1999;103(5 Pt 1):810–815.

Salome CM, Leuppi JD, Freed R, Marks GB. Perception of airway narrowing during reduction of inhaled corticosteroids and asthma exacerbation. *Thorax* 2003;58(12):1042–1047.

Salpeter S, Ormiston T, Salpeter E. Cardioselective beta-blocker use in patients with reversible airway disease. *Cochrane Database Syst Rev* 2001;(2):CD002992.

Salpeter S, Ormiston T, Salpeter E. Cardioselective beta-blockers for reversible airway disease. *Cochrane Database Syst Rev* 2002;(4):CD002992.

Salpeter SR, Ormiston TM, Salpeter EE. Cardioselective beta-blockers in patients with reactive airway disease: a meta-analysis. *Ann Intern Med* 2002;137(9):715–725.

Salpeter SR, Ormiston TM, Salpeter EE. Cardiovascular effects of beta-agonists in patients with asthma and COPD: a meta-analysis. *Chest* 2004;125(6):2309–2321.

Samee S, Altes T, Powers P, de Lange EE, Knight-Scott J, Rakes G, Mugler JP III, Ciambotti JM, Alford BA, Brookeman JR, et al. Imaging the lungs in asthmatic patients by using hyperpolarized helium-3 magnetic resonance: assessment of response to methacholine and exercise challenge. *J Allergy Clin Immunol* 2003;111(6):1205–1211.

Sanchez-Borges M, Caballero-Fonseca F, Capriles-Hulett A. Tolerance of nonsteroidal anti-inflammatory drug-sensitive patients to the highly specific cyclooxygenase 2 inhibitors rofecoxib and valdecoxib. *Ann Allergy Asthma Immunol* 2005;94(1):34–38.

Sandberg S, Paton JY, Ahola S, McCann DC, McGuinness D, Hillary CR, Oja H. The role of acute and chronic stress in asthma attacks in children. *Lancet* 2000;356(9234):982–987.

Sandel M, Phelan K, Wright R, Hynes HP, Lanphear BP. The effects of housing interventions on child health. *Pediatr Ann* 2004;33(7):474–481.

Sandrini A, Ferreira IM, Jardim JR, Zamel N, Chapman KR. Effect of nasal triamcinolone acetonide on lower airway inflammatory markers in patients with allergic rhinitis. *J Allergy Clin Immunol* 2003;111(2):313–320.

Sano F, Sole D, Naspritz CK. Prevalence and characteristics of exercise-induced asthma in children. *Pediatr Allergy Immunol* 1998;9(4):181–185.

Santanello NC, Demuro-Mercon C, Davies G, Ostrom N, Noonan M, Rooklin A, Knorr B. Validation of a pediatric asthma caregiver diary. *J Allergy Clin Immunol* 2000;106(5):861–866.

Sapien RE, Lapidus J, Coors L, Murphy SJ. Prehospital EMS treatment of pediatric asthma and what happens before help arrives? *J Asthma* 1997;34(6):477–481.

Sapien RE, Allen A. School preparation for the asthmatic student. *J Asthma* 2000;37(8):719–724.

Sarpong SB, Garrison T. Sensitization to indoor allergens and the risk for asthma hospitalization in children. *Ann Allergy Asthma Immunol* 1997;79(5):455–459.

Sarpong SB, Garrison T. Skin test reactivity to indoor allergens as a marker of asthma severity in children with asthma. *Ann Allergy Asthma Immunol* 1998;80(4):303–308.

Sarrell EM, Mandelberg A, Cohen HA, Kahan E. Compliance of primary care doctors with asthma guidelines and related education programs: the employment factor. *Isr Med Assoc J* 2002;4(6):403–406.

Sawyer SM, Fardy HJ. Bridging the gap between doctors' and patients' expectations of asthma management. *J Asthma* 2003;40(2):131–138.

Sazonov K, V, Thomas J III, Jonsson L, Valovirta E, Kristensen F, Yin DD, Bisgaard H. Association between allergic rhinitis and hospital resource use among asthmatic children in Norway. *Allergy* 2005;60(3):338–342.

Scarfone RJ, Loiselle JM, Joffe MD, Mull CC, Stiller S, Thompson K, Gracely EJ. A randomized trial of magnesium in the emergency department treatment of children with asthma. *Ann Emerg Med* 2000;36(6):572–578.

Scarfone RJ, Zorc JJ, Capraro GA. Patient self-management of acute asthma: adherence to national guidelines a decade later. *Pediatrics* 2001;108(6):1332–1338.

Scarfone RJ, Capraro GA, Zorc JJ, Zhao H. Demonstrated use of metered-dose inhalers and peak flow meters by children and adolescents with acute asthma exacerbations. *Arch Pediatr Adolesc Med* 2002;156(4):378–383.

Scarfone RJ, Zorc JJ, Angsuco CJ. Emergency physicians' prescribing of asthma controller medications. *Pediatrics* 2006;117(3):821–827.

Schachter LM, Salome CM, Peat JK, Woolcock AJ. Obesity is a risk for asthma and wheeze but not airway hyperresponsiveness. *Thorax* 2001;56(1):4–8.

Schachter LM, Peat JK, Salome CM. Asthma and atopy in overweight children. *Thorax* 2003;58(12):1031–1035.

Schaffer SD, Tian L. Promoting adherence: effects of theory-based asthma education. *Clin Nurs Res* 2004;13(1):69–89.

Schatz M, Rodriguez E, Falkoff R, Zeiger RS. The relationship of frequency of follow-up visits to asthma outcomes in patients with moderate persistent asthma. *J Asthma* 2003;40(1):49–53.

Schatz M, Cook EF, Joshua A, Petitti D. Risk factors for asthma hospitalizations in a managed care organization: development of a clinical prediction rule. *Am J Manag Care* 2003;9(8):538–547.

Schatz M, Clark S, Emond JA, Schreiber D, Camargo CA Jr. Sex differences among children 2–13 years of age presenting at the emergency department with acute asthma. *Pediatr Pulmonol* 2004;37(6):523–529.

Schatz M, Nakahiro R, Jones CH, Roth RM, Joshua A, Petitti D. Asthma population management: development and validation of a practical 3-level risk stratification scheme. *Am J Manag Care* 2004;10(1):25–32.

- Schatz M, Mosen D, Apter AJ, Zeiger RS, Vollmer WM, Stibolt TB, Leong A, Johnson MS, Mendoza G, Cook EF. Relationships among quality of life, severity, and control measures in asthma: an evaluation using factor analysis. *J Allergy Clin Immunol* 2005;115(5):1049–1055.
- Schermer TR, Thoonen BP, Van Den Boom G, Akkermans RP, Grol RP, Folgering HT, Van Weel C, Van Schayck CP. Randomized controlled economic evaluation of asthma self-management in primary health care. *Am J Respir Crit Care Med* 2002;166(8):1062–1072.
- Schmidt SM, Muller CE, Bruns R, Wiersbitzky SK. Bronchial Chlamydia pneumoniae infection, markers of allergic inflammation and lung function in children. *Pediatr Allergy Immunol* 2001;12(5):257–265.
- Schonwald S. Methylprednisolone anaphylaxis. *Am J Emerg Med* 1999;17(6):583–585.
- Schuckman H, DeJulius DP, Blanda M, Gerson LW, DeJulius AJ, Rajaratnam M. Comparison of intramuscular triamcinolone and oral prednisone in the outpatient treatment of acute asthma: a randomized controlled trial. *Ann Emerg Med* 1998;31(3):333–338.
- Schuh S, Johnson D, Stephens D, Callahan S, Canny G. Hospitalization patterns in severe acute asthma in children. *Pediatr Pulmonol* 1997;23(3):184–192.
- Schuh S, Johnson DW, Stephens D, Callahan S, Winders P, Canny GJ. Comparison of albuterol delivered by a metered dose inhaler with spacer versus a nebulizer in children with mild acute asthma. *J Pediatr* 1999;135(1):22–27.
- Schuh S, Reisman J, Alshehri M, Dupuis A, Corey M, Arseneault R, Alothman G, Tennis O, Canny G. A comparison of inhaled fluticasone and oral prednisone for children with severe acute asthma. *N Engl J Med* 2000;343(10):689–694.
- Schulman S. Addressing the potential risks associated with ephedra use: a review of recent efforts. *Public Health Rep* 2003;118(6):487–492.
- Schulte A, Musolf J, Meurer JR, Cohn JH, Kelly KJ. Pediatric asthma case management: a review of evidence and an experimental study design. *J Pediatr Nurs* 2004;19(4):304–310.
- Schulz M, Verheyen F, Muhlig S, Muller JM, Muhlbauer K, Knop-Schneickert E, Petermann F, Bergmann KC. Pharmaceutical care services for asthma patients: a controlled intervention study. *J Clin Pharmacol* 2001;41(6):668–676.
- Schwartz HJ, Petty T, Dube LM, Swanson LJ, Lancaster JF. A randomized controlled trial comparing zileuton with theophylline in moderate asthma. The Zileuton Study Group. *Arch Intern Med* 1998;158(2):141–148.
- Schwartz J, Timonen KL, Pekkanen J. Respiratory effects of environmental tobacco smoke in a panel study of asthmatic and symptomatic children. *Am J Respir Crit Care Med* 2000;161(3 Pt 1):802–806.
- Schwartzman K, Duquette G, Zaoude M, Dion MJ, Lagace MA, Poitras J, Cosio MG. Respiratory day hospital: a novel approach to acute respiratory care. *CMAJ* 2001;165(8):1067–1071.

Schweisfurth H, Malinen A, Koskela T, Toivanen P, Ranki-Pesonen M. Comparison of two budesonide powder inhalers, Easyhaler and Turbuhaler, in steroid-naïve asthmatic patients. *Respir Med* 2002;96(8):599–606.

Scollo M, Zanconato S, Ongaro R, Zaramella C, Zacchello F, Baraldi E. Exhaled nitric oxide and exercise-induced bronchoconstriction in asthmatic children. *Am J Respir Crit Care Med* 2000;161(3 Pt 1):1047–1050.

Scribano PV, Lerer T, Kennedy D, Cloutier MM. Provider adherence to a clinical practice guideline for acute asthma in a pediatric emergency department. *Acad Emerg Med* 2001;8(12):1147–1152.

Sears MR, Greene JM, Willan AR, Wiecek EM, Taylor DR, Flannery EM, Cowan JO, Herbison GP, Silva PA, Poulton R. A longitudinal, population-based, cohort study of childhood asthma followed to adulthood. *N Engl J Med* 2003;349(15):1414–1422.

Seberova E, Andersson A. Oxis (formoterol given by Turbuhaler) showed as rapid an onset of action as salbutamol given by a pMDI. *Respir Med* 2000;94(6):607–611.

Sefion I, Ennaji A, Gailhardou M, Canu S. ADEMA: a decision support system for asthma health care. *Stud Health Technol Inform* 2003;95:623–628.

Sekerel BE, Akpinarli A, Kalayci O. Vocal cord dysfunction: more morbid than asthma if misdiagnosed. *J Investig Allergol Clin Immunol* 2002;12(1):65–66.

Self TH, Cross LB, Nolan SE, Weibel JB, Hilaire M, Franks AR, Finch CK, Tolley EA. Gender differences in the use of peak flow meters and their effect on peak expiratory flow. *Pharmacotherapy* 2005;25(4):526–530.

Sellers WF, Messahel B. Rapidly repeated intravenous boluses of salbutamol for acute severe asthma. *Anaesthesia* 2003;58(7):680–683.

Sethi GR, Sharma S, Batra V, Sharma DR. Double-blind, placebo-controlled study of the efficacy and tolerability of nimesulide administered orally in acute bronchial asthma. *Am J Ther* 2002;9(4):281–287.

Shah S, Peat JK, Mazurski EJ, Wang H, Sindhushake D, Bruce C, Henry RL, Gibson PG. Effect of peer led programme for asthma education in adolescents: cluster randomised controlled trial. *BMJ* 2001;322(7286):583–585.

Shaheen SO, Newson RB, Henderson AJ, Headley JE, Stratton FD, Jones RW, Strachan DP. Prenatal paracetamol exposure and risk of asthma and elevated immunoglobulin E in childhood. *Clin Exp Allergy* 2005;35(1):18–25.

Shalowitz MU, Berry CA, Quinn KA, Wolf RL. The relationship of life stressors and maternal depression to pediatric asthma morbidity in a subspecialty practice. *Ambul Pediatr* 2001;1(4):185–193.

Shames RS, Heilbron DC, Janson SL, Kishiyama JL, Au DS, Adelman DC. Clinical differences among women with and without self-reported perimenstrual asthma. *Ann Allergy Asthma Immunol* 1998;81(1):65–72.

Shames RS, Sharek P, Mayer M, Robinson TN, Hoyte EG, Gonzalez-Hensley F, Bergman DA, Umetsu DT. Effectiveness of a multicomponent self-management program in at-risk, school-aged children with asthma. *Ann Allergy Asthma Immunol* 2004;92(6):611–618.

Shapiro G, Bronsky E, Murray A, Barnhart F, VanderMeer A, Reisner C. Clinical comparability of ventolin formulated with hydrofluoroalkane or conventional chlorofluorocarbon propellants in children with asthma. *Arch Pediatr Adolesc Med* 2000;154(12):1219–1225.

Shapiro G, Lumry W, Wolfe J, Given J, White MV, Woodring A, Baitinger L, House K, Prillaman B, Shah T. Combined salmeterol 50 microg and fluticasone propionate 250 microg in the diskus device for the treatment of asthma. *Am J Respir Crit Care Med* 2000;161(2 Pt 1):527–534.

Shapiro GG, Wighton TG, Chinn T, Zuckerman J, Eliassen AH, Picciano JF, Platts-Mills TA. House dust mite avoidance for children with asthma in homes of low-income families. *J Allergy Clin Immunol* 1999;103(6):1069–1074.

Shapiro GS, Yegen U, Xiang J, Kottakis J, Della Cioppa G. A randomized, double-blind, single-dose, crossover clinical trial of the onset and duration of protection from exercise-induced bronchoconstriction by formoterol and albuterol. *Clin Ther* 2002;24(12):2077–2087.

Sharara AM, Hijazi M, Tarawneh M, Ind PW. Nebulized glyceryl trinitrate exerts acute bronchodilator effects in patients with acute bronchial asthma. *Pulm Pharmacol Ther* 1998;11(1):65–70.

Sharek PJ, Mayer ML, Loewy L, Robinson TN, Shames RS, Umetsu DT, Bergman DA. Agreement among measures of asthma status: a prospective study of low-income children with moderate to severe asthma. *Pediatrics* 2002;110(4):797–804.

Shegog R, Bartholomew LK, Parcel GS, Sockrider MM, Masse L, Abramson SL. Impact of a computer-assisted education program on factors related to asthma self-management behavior. *J Am Med Inform Assoc* 2001;8(1):49–61.

Sheikh A, Hurwitz B, Sibbald B, Barnes G, Howe M, Durham S. House dust mite barrier bedding for childhood asthma: randomised placebo controlled trial in primary care [ISRCTN63308372]. *BMC Fam Pract* 2002;3(1):12.

Sheikh S, Goldsmith LJ, Howell L, Parry L, Eid N. Comparison of lung function in infants exposed to maternal smoking and in infants with a family history of asthma. *Chest* 1999;116(1):52–58.

Sheikh S, Goldsmith LJ, Howell L, Hamlyn J, Eid N. Lung function in infants with wheezing and gastroesophageal reflux. *Pediatr Pulmonol* 1999;27(4):236–241.

Shenfield G, Lim E, Allen H. Survey of the use of complementary medicines and therapies in children with asthma. *J Paediatr Child Health* 2002;38(3):252–257.

Sheppard L, Levy D, Norris G, Larson TV, Koenig JQ. Effects of ambient air pollution on nonelderly asthma hospital admissions in Seattle, Washington, 1987–1994. *Epidemiology* 1999;10(1):23–30.

Sheth K, Borker R, Emmett A, Rickard K, Dorinsky P. Cost-effectiveness comparison of salmeterol/fluticasone propionate versus montelukast in the treatment of adults with persistent asthma. *Pharmacoeconomics* 2002;20(13):909–918.

Shiffman RN, Freudigman M, Brandt CA, Liaw Y, Navedo DD. A guideline implementation system using handheld computers for office management of asthma: effects on adherence and patient outcomes. *Pediatrics* 2000;105(4 Pt 1):767–773.

Shima M, Adachi M. Effect of outdoor and indoor nitrogen dioxide on respiratory symptoms in schoolchildren. *Int J Epidemiol* 2000;29(5):862–870.

Shindo K, Koide K, Fukumura M. PAF-induced eosinophil chemotaxis increases during an asthmatic attack and is inhibited by prednisolone in vivo and in vitro. *Biochem Biophys Res Commun* 1997;237(1):146–151.

Shindo K, Machida M, Fukumura M, Koide K. Prednisolone inhibits synthesis of 5-H(P)ETE in eosinophils from asthmatic patients during a wheezing attack but not during remission. *Prostaglandins Leukot Essent Fatty Acids* 1998;58(2):111–117.

Shirtcliffe PM, Easthope SE, Cheng S, Weatherall M, Tan PL, Le Gros G, Beasley R. The effect of delipidated deglycolipidated (DDMV) and heat-killed *Mycobacterium vaccae* in asthma. *Am J Respir Crit Care Med* 2001;163(6):1410–1414.

Shirtcliffe PM, Goldkorn A, Weatherall M, Tan PL, Beasley R. Pilot study of the safety and effect of intranasal delipidated acid-treated *Mycobacterium vaccae* in adult asthma. *Respirology* 2003;8(4):497–503.

Shirtcliffe PM, Easthope SE, Weatherall M, Beasley R. Effect of repeated intradermal injections of heat-inactivated *Mycobacterium bovis* bacillus Calmette-Guerin in adult asthma. *Clin Exp Allergy* 2004;34(2):207–212.

Shore SA, Drazen JM. Beta-agonists and asthma: too much of a good thing? *J Clin Invest* 2003;112(4):495–497.

Shrewsbury S, Pyke S, Britton M. Meta-analysis of increased dose of inhaled steroid or addition of salmeterol in symptomatic asthma (MIASMA). *BMJ* 2000;320(7246):1368–1373.

Shrewsbury S, Hallett C. Salmeterol 100 microg: an analysis of its tolerability in single- and chronic-dose studies. *Ann Allergy Asthma Immunol* 2001;87(6):465–473.

Sidebotham HJ, Roche WR. Asthma deaths; persistent and preventable mortality. *Histopathology* 2003;43(2):105–117.

Sigurs N, Gustafsson PM, Bjarnason R, Lundberg F, Schmidt S, Sigurbergsson F, Kjellman B. Severe respiratory syncytial virus bronchiolitis in infancy and asthma and allergy at age 13. *Am J Respir Crit Care Med* 2005;171(2):137–141. Epub October 2004.

Silverman EK, Kwiatkowski DJ, Sylvia JS, Lazarus R, Drazen JM, Lange C, Laird NM, Weiss ST. Family-based association analysis of beta<sub>2</sub>-adrenergic receptor polymorphisms in the childhood asthma management program. *J Allergy Clin Immunol* 2003;112(5):870–876.

Silverman R, Sellers J, Greene S, Flaster E, Colice G. Comparison of the Maxair Autohaler to wet nebulizer in patients with acute asthma. *Chest* 1998;114(3):766–770.

Silverman RA, Osborn H, Runge J, Gallagher EJ, Chiang W, Feldman J, Gaeta T, Freeman K, Levin B, Mancherje N, et al. IV magnesium sulfate in the treatment of acute severe asthma: a multicenter randomized controlled trial. *Chest* 2002;122(2):489–497.

Silverman RA, Boudreaux ED, Woodruff PG, Clark S, Camargo CA Jr. Cigarette smoking among asthmatic adults presenting to 64 emergency departments. *Chest* 2003;123(5):1472–1479.

Silverman RA, Stevenson L, Hastings HM. Age-related seasonal patterns of emergency department visits for acute asthma in an urban environment. *Ann Emerg Med* 2003;42(4):577–586.

Silverman RA, Nowak RM, Korenblat PE, Skobeloff E, Chen Y, Bonuccelli CM, Miller CJ, Simonson SG. Zafirlukast treatment for acute asthma: evaluation in a randomized, double-blind, multicenter trial. *Chest* 2004;126(5):1480–1489.

Silvestri M, Spallarossa D, Battistini E, Brusasco V, Rossi GA. Dissociation between exhaled nitric oxide and hyperresponsiveness in children with mild intermittent asthma. *Thorax* 2000;55(6):484–488.

Silvestri M, Sabatini F, Sale R, Defilippi AC, Fregonese L, Battistini E, Biraghi MG, Rossi GA. Correlations between exhaled nitric oxide levels, blood eosinophilia, and airway obstruction reversibility in childhood asthma are detectable only in atopic individuals. *Pediatr Pulmonol* 2003;35(5):358–363.

Sim D, Griffiths A, Armstrong D, Clarke C, Rodda C, Freezer N. Adrenal suppression from high-dose inhaled fluticasone propionate in children with asthma. *Eur Respir J* 2003;21(4):633–636.

Simons FE, Villa JR, Lee BW, Teper AM, Lyttle B, Aristizabal G, Laessig W, Schuster A, Perez-Frias J, Sekerel BE, et al. Montelukast added to budesonide in children with persistent asthma: a randomized, double-blind, crossover study. *J Pediatr* 2001;138(5):694–698.

Simpson AJ, Matusiewicz SP, Brown PH, McCall IA, Innes JA, Greening AP, Crompton GK. Emergency pre-hospital management of patients admitted with acute asthma. *Thorax* 2000;55(2):97–101.

Sims EJ, Jackson CM, Lipworth BJ. Add-on therapy with montelukast or formoterol in patients with the glycine-16 beta<sub>2</sub>-receptor genotype. *Br J Clin Pharmacol* 2003;56(1):104–111.

Sin DD, Tu JV. Underuse of inhaled steroid therapy in elderly patients with asthma. *Chest* 2001;119(3):720–725.

Sin DD, Man SF. Low-dose inhaled corticosteroid therapy and risk of emergency department visits for asthma. *Arch Intern Med* 2002;162(14):1591–1595.

Sin DD, Bell NR, Svenson LW, Man SF. The impact of follow-up physician visits on emergency readmissions for patients with asthma and chronic obstructive pulmonary disease: a population-based study. *Am J Med* 2002;112(2):120–125.

Sin DD, Man J, Sharpe H, Gan WQ, Man SF. Pharmacological management to reduce exacerbations in adults with asthma: a systematic review and meta-analysis. *JAMA* 2004;292(3):367–376.

Sin DD, Bell NR, Man SF. Effects of increased primary care access on process of care and health outcomes among patients with asthma who frequent emergency departments. *Am J Med* 2004;117(7):479–483.

Sinclair AH, Tolsma D. Associations and lags between air pollution and acute respiratory visits in an ambulatory care setting: 25-month results from the aerosol research and inhalation epidemiological study. *J Air Waste Manag Assoc* 2004;54(9):1212–1218.

Singh AK, Woodruff PG, Ritz RH, Mitchell D, Camargo CA Jr. Inhaled corticosteroids for asthma: are ED visits a missed opportunity for prevention? *Am J Emerg Med* 1999;17(2):144–147.

Singh AK, Cydulka RK, Stahmer SA, Woodruff PG, Camargo CA Jr. Sex differences among adults presenting to the emergency department with acute asthma. Multicenter Asthma Research Collaboration Investigators. *Arch Intern Med* 1999;159(11):1237–1243.

Singh V, Sinha HV, Gupta R. Barriers in the management of asthma and attitudes towards complementary medicine. *Respir Med* 2002;96(10):835–840.

Singhi S, Banerjee S, Nanjundaswamy H. Inhaled budesonide in acute asthma. *J Paediatr Child Health* 1999;35(5):483–487.

Sippel JM, Pedula KL, Vollmer WM, Buist AS, Osborne ML. Associations of smoking with hospital-based care and quality of life in patients with obstructive airway disease. *Chest* 1999;115(3):691–696.

Sippel JM, Holden WE, Tilles SA, O'Hollaren M, Cook J, Thukkani N, Priest J, Nelson B, Osborne ML. Exhaled nitric oxide levels correlate with measures of disease control in asthma. *J Allergy Clin Immunol* 2000;106(4):645–650.

Siroux V, Curt F, Oryszczyn MP, Maccario J, Kauffmann F. Role of gender and hormone-related events on IgE, atopy, and eosinophils in the Epidemiological Study on the Genetics and Environment of Asthma, bronchial hyperresponsiveness and atopy. *J Allergy Clin Immunol* 2004;114(3):491–498.

Sivri A, Coplu L. Effect of the long-term use of inhaled corticosteroids on bone mineral density in asthmatic women. *Respirology* 2001;6(2):131–134.

Sjosward KN, Josefsson M, Ahlner J, Schmekel B. Preserved bronchial dilatation after salbutamol does not guarantee protection against bronchial hyperresponsiveness. *Clin Physiol Funct Imaging* 2003;23(1):14–20.

- Skoner DP, Szeffler SJ, Welch M, Walton-Bowen K, Cruz-Rivera M, Smith JA. Longitudinal growth in infants and young children treated with budesonide inhalation suspension for persistent asthma. *J Allergy Clin Immunol* 2000;105(2 Pt 1):259–268.
- Skrepnek GH, Skrepnek SV. An assessment of therapeutic regimens in the treatment of acute exacerbations in chronic obstructive pulmonary disease and asthma. *Am J Manag Care* 2004;10(5 Suppl):S139–S152.
- Slack R, Bucknall CE. Readmission rates are associated with differences in the process of care in acute asthma. *Qual Health Care* 1997;6(4):194–198.
- Slattery D, Wong SW, Colin AA. Levalbuterol hydrochloride. *Pediatr Pulmonol* 2002;33(2):151–157.
- Slaughter JC, Lumley T, Sheppard L, Koenig JQ, Shapiro GG. Effects of ambient air pollution on symptom severity and medication use in children with asthma. *Ann Allergy Asthma Immunol* 2003;91(4):346–353.
- Slovis CM. 5-Step asthma approach: managing acute asthma in 5 steps or less. *JEMS* 2003;28(12):64–2.
- Slutsky P, Bryant-Stephens T. Developing a comprehensive, community-based asthma education and training program. *Pediatr Nurs* 2001;27(5):449–457, 461.
- Smeele IJ, Grol RP, Van Schayck CP, van den Bosch WJ, van den Hoogen HJ, Muris JW. Can small group education and peer review improve care for patients with asthma/chronic obstructive pulmonary disease? *Qual Health Care* 1999;8(2):92–98.
- Smith AD, Cowan JO, Filsell S, McLachlan C, Monti-Sheehan G, Jackson P, Taylor DR. Diagnosing asthma: comparisons between exhaled nitric oxide measurements and conventional tests. *Am J Respir Crit Care Med* 2004;169(4):473–478.
- Smith AD, Cowan JO, Brassett KP, Filsell S, McLachlan C, Monti-Sheehan G, Peter HG, Robin TD. Exhaled nitric oxide: a predictor of steroid response. *Am J Respir Crit Care Med* 2005;172(4):453–459.
- Smith AD, Cowan JO, Brassett KP, Herbison GP, Taylor DR. Use of exhaled nitric oxide measurements to guide treatment in chronic asthma. *N Engl J Med* 2005;352(21):2163–2173. Epub May 2005.
- Smith BJ, Nitschke M, Pilotto LS, Ruffin RE, Pisaniello DL, Willson KJ. Health effects of daily indoor nitrogen dioxide exposure in people with asthma. *Eur Respir J* 2000;16(5):879–885.
- Smith D, Riel J, Tilles I, Kino R, Lis J, Hoffman JR. Intravenous epinephrine in life-threatening asthma. *Ann Emerg Med* 2003;41(5):706–711.
- Smith M, Iqbal S, Elliott TM, Everard M, Rowe BH. Corticosteroids for hospitalised children with acute asthma. *Cochrane Database Syst Rev* 2003;(2):CD002886.
- Smith SR, Strunk RC. Acute asthma in the pediatric emergency department. *Pediatr Clin North Am* 1999;46(6):1145–1165.

Smith SR, Baty JD, Hodge D III. Validation of the pulmonary score: an asthma severity score for children. *Acad Emerg Med* 2002;9(2):99–104.

Smith SR, Highstein GR, Jaffe DM, Fisher EB Jr, Strunk RC. Parental impressions of the benefits (pros) and barriers (cons) of follow-up care after an acute emergency department visit for children with asthma. *Pediatrics* 2002;110(2 Pt 1):323–330.

Smith SR, Jaffe DM, Fisher EB Jr, Trinkaus KM, Highstein G, Strunk RC. Improving follow-up for children with asthma after an acute Emergency Department visit. *J Pediatr* 2004;145(6):772–777.

Smith SR, Jaffe DM, Petty M, Worthy V, Banks P, Strunk RC. Recruitment into a long-term pediatric asthma study during emergency department visits. *J Asthma* 2004;41(4):477–484.

Smyth RJ. Ventilatory care in status asthmaticus. *Can Respir J* 1998;5(6):485–490.

Solans R, Bosch JA, Selva A, Orriols R, Vilardell M. Montelukast and Churg-Strauss syndrome. *Thorax* 2002;57(2):183–185.

Sole D, Komatsu MK, Carvalho KV, Naspritz CK. Pulse oximetry in the evaluation of the severity of acute asthma and/or wheezing in children. *J Asthma* 1999;36(4):327–333.

Soler M, Matz J, Townley R, Buhl R, O'Brien J, Fox H, Thirlwell J, Gupta N, Della Cioppa G. The anti-IgE antibody omalizumab reduces exacerbations and steroid requirement in allergic asthmatics. *Eur Respir J* 2001;18(2):254–261.

Sonna LA, Angel KC, Sharp MA, Knapik JJ, Patton JF, Lilly CM. The prevalence of exercise-induced bronchospasm among US Army recruits and its effects on physical performance. *Chest* 2001;119(6):1676–1684.

Sont JK, Willems LN, Bel EH, van Krieken JH, Vandebroucke JP, Sterk PJ. Clinical control and histopathologic outcome of asthma when using airway hyperresponsiveness as an additional guide to long-term treatment. The AMPUL Study Group. *Am J Respir Crit Care Med* 1999;159(4 Pt 1):1043–1051.

Sontag SJ, O'Connell S, Khandelwal S, Greenlee H, Schnell T, Nemchausky B, Chejfec G, Miller T, Seidel J, Sonnenberg A. Asthmatics with gastroesophageal reflux: long term results of a randomized trial of medical and surgical antireflux therapies. *Am J Gastroenterol* 2003;98(5):987–999.

Soriano JB, Rabe KF, Vermeire PA. Predictors of poor asthma control in European adults. *J Asthma* 2003;40(7):803–813.

Sorkness C, McGill K, Busse WW. Evaluation of serum eosinophil cationic protein as a predictive marker for asthma exacerbation in patients with persistent disease. *Clin Exp Allergy* 2002;32(9):1355–1359.

Soussan D, Liard R, Zureik M, Touron D, Rogeaux Y, Neukirch F. Treatment compliance, passive smoking, and asthma control: a three year cohort study. *Arch Dis Child* 2003;88(3):229–233.

South M. Reduction in length of hospital stay for acute childhood asthma associated with the introduction of casemix funding. *Med J Aust* 1997;167(1):11–13.

Sovijarvi AR, Haahtela T, Ekroos HJ, Lindqvist A, Saarinen A, Poussa T, Laitinen LA. Sustained reduction in bronchial hyperresponsiveness with inhaled fluticasone propionate within three days in mild asthma: time course after onset and cessation of treatment. *Thorax* 2003;58(6):500–504.

Spann JD, Leung DY, Chan MT, Szeffler SJ, Gelfand EW. Mechanisms of glucocorticoid reduction in asthmatic subjects treated with intravenous immunoglobulin. *J Allergy Clin Immunol* 1999;103(3 Pt 1):421–426.

Spann JD, Fost DA, Covar R, Martin RJ, Brown EE, Szeffler SJ, Leung DY. Clarithromycin potentiates glucocorticoid responsiveness in patients with asthma: results of a pilot study. *Ann Allergy Asthma Immunol* 2001;87(6):501–505.

Spallarossa D, Battistini E, Silvestri M, Sabatini F, Fregonese L, Brazzola G, Rossi GA. Steroid-naive adolescents with mild intermittent allergic asthma have airway hyperresponsiveness and elevated exhaled nitric oxide levels. *J Asthma* 2003;40(3):301–310.

Spivak H, Smith CD, Phichith A, Galloway K, Waring JP, Hunter JG. Asthma and gastroesophageal reflux: fundoplication decreases need for systemic corticosteroids. *J Gastrointest Surg* 1999;3(5):477–482.

Spooner CH, Spooner GR, Rowe BH. Mast-cell stabilising agents to prevent exercise-induced bronchoconstriction. *Cochrane Database Syst Rev* 2003;(4):CD002307.

Sporik R, Hill DJ, Thompson PJ, Stewart GA, Carlin JB, Nolan TM, Kemp AS, Hosking CS. The Melbourne House Dust Mite Study: long-term efficacy of house dust mite reduction strategies. *J Allergy Clin Immunol* 1998;101(4 Pt 1):451–456.

Spottswood SE, Allison KZ, Lopatina OA, Sethi NN, Narla LD, Lowry PA, Nettleman MD. The clinical significance of lung hypoexpansion in acute childhood asthma. *Pediatr Radiol* 2004;34(4):322–325.

Springer C, Godfrey S, Picard E, Uwydy K, Rotschild M, Hananya S, Noviski N, Avital A. Efficacy and safety of methacholine bronchial challenge performed by auscultation in young asthmatic children. *Am J Respir Crit Care Med* 2000;162(3 Pt 1):857–860.

Srichana T, Suedee R, Muanpanarai D, Tanmanee N. The study of in vitro-in vivo correlation: pharmacokinetics and pharmacodynamics of albuterol dry powder inhalers. *J Pharm Sci* 2005;94(1):220–230.

Stahl E, Postma DS, Svensson K, Tattersfield AE, Eivindson A, Schreurs A, Lofdahl CG. Formoterol used as needed improves health-related quality of life in asthmatic patients uncontrolled with inhaled corticosteroids. *Respir Med* 2003;97(9):1061–1066.

Stahl E, Postma DS, Juniper EF, Svensson K, Mear I, Lofdahl CG. Health-related quality of life in asthma studies. Can we combine data from different countries? *Pulm Pharmacol Ther* 2003;16(1):53–59.

Stallberg B, Olsson P, Jorgensen LA, Lindarck N, Ekstrom T. Budesonide/formoterol adjustable maintenance dosing reduces asthma exacerbations versus fixed dosing. *Int J Clin Pract* 2003;57(8):656–661.

Stanley AH, Demissie K, Rhoads GG. Asthma development with obesity exposure: observations from the cohort of the National Health and Nutrition Evaluation Survey Epidemiologic Follow-up Study (NHEFS). *J Asthma* 2005;42(2):97–99.

Stedman JR, Anderson HR, Atkinson RW, Maynard RL. Emergency hospital admissions for respiratory disorders attributable to summer time ozone episodes in Great Britain. *Thorax* 1997;52(11):958–963.

Steel S, Lock S, Johnson N, Martinez Y, Marquilles E, Bayford R. A feasibility study of remote monitoring of asthmatic patients. *J Telemed Telecare* 2002;8(5):290–296.

Steinshamn S, Sandsund M, Sue-Chu M, Bjermer L. Effects of montelukast on physical performance and exercise economy in adult asthmatics with exercise-induced bronchoconstriction. *Scand J Med Sci Sports* 2002;12(4):211–217.

Stelmach I, Jerzynska J, Brzozowska A, Kuna P. Double-blind, randomized, placebo-controlled trial of effect of nedocromil sodium on clinical and inflammatory parameters of asthma in children allergic to dust mite. *Allergy* 2001;56(6):518–524.

Stelmach I, Jerzynska J, Kuna P. A randomized, double-blind trial of the effect of treatment with montelukast on bronchial hyperresponsiveness and serum eosinophilic cationic protein (ECP), soluble interleukin 2 receptor (sIL-2R), IL-4, and soluble intercellular adhesion molecule 1 (sICAM-1) in children with asthma. *J Allergy Clin Immunol* 2002;109(2):257–263.

Stelmach I, Gorski P, Jerzynska J, Stelmach W, Majak P, Kuna P. A randomized, double-blind trial of the effect of treatment with formoterol on clinical and inflammatory parameters of asthma in children. *Ann Allergy Asthma Immunol* 2002;89(1):67–73.

Stempel DA, Mauskopf J, McLaughlin T, Yazdani C, Stanford RH. Comparison of asthma costs in patients starting fluticasone propionate compared to patients starting montelukast. *Respir Med* 2001;95(3):227–234.

Stenfors N, Nordenhall C, Salvi SS, Mudway I, Soderberg M, Blomberg A, Helleday R, Levin JO, Holgate ST, Kelly FJ, et al. Different airway inflammatory responses in asthmatic and healthy humans exposed to diesel. *Eur Respir J* 2004;23(1):82–86.

Stenius-Aarniala B, Poussa T, Kvarnstrom J, Gronlund EL, Ylikahri M, Mustajoki P. Immediate and long term effects of weight reduction in obese people with asthma: randomised controlled study. *BMJ* 2000;320(7238):827–832. Erratum in: *BMJ* 2000;320(7240):984.

Stergachis A, Gardner JS, Anderson MT, Sullivan SD. Improving pediatric asthma outcomes in the community setting: does pharmaceutical care make a difference? *J Am Pharm Assoc (Wash)* 2002;42(5):743–752.

Steven K, Morrison J, Drummond N. Lay versus professional motivation for asthma treatment: a cross-sectional, qualitative study in a single Glasgow general practice. *Fam Pract* 2002;19(2):172–177.

Stevens CA, Wesseldine LJ, Couriel JM, Dyer AJ, Osman LM, Silverman M. Parental education and guided self-management of asthma and wheezing in the pre-school child: a randomised controlled trial. *Thorax* 2002;57(1):39–44.

Stevens MW, Gorelick MH. Short-term outcomes after acute treatment of pediatric asthma. *Pediatrics* 2001;107(6):1357–1362.

Stevenson DD, Simon RA, Mathison DA, Christiansen SC. Montelukast is only partially effective in inhibiting aspirin responses in aspirin-sensitive asthmatics. *Ann Allergy Asthma Immunol* 2000;85(6 Pt 1):477–482.

Stevenson DD, Simon RA. Lack of cross-reactivity between rofecoxib and aspirin in aspirin-sensitive patients with asthma. *J Allergy Clin Immunol* 2001;108(1):47–51.

Stevenson LA, Gergen PJ, Hoover DR, Rosenstreich D, Mannino DM, Matte TD. Sociodemographic correlates of indoor allergen sensitivity among United States children. *J Allergy Clin Immunol* 2001;108(5):747–752.

Stewart BA, Ahrens RC, Carrier S, Frosolono M, Lux C, Han SH, Milavetz G. Demonstration of in vivo bioequivalence of a generic albuterol metered-dose inhaler to Ventolin. *Chest* 2000;117(3):714–721.

Stordal K, Johannesson GB, Bentsen BS, Knudsen PK, Carlsen KC, Closs O, Handeland M, Holm HK, Sandvik L. Acid suppression does not change respiratory symptoms in children with asthma and gastro-oesophageal reflux disease. *Arch Dis Child* 2005;90(9):956–960.

Stormon MO, Mellis CM, Van Asperen PP, Kilham HA. Outcome evaluation of early discharge of asthmatic children from hospital: a randomized control trial. *J Qual Clin Pract* 1999;19(3):149–154.

Storms W, Michele TM, Knorr B, Noonan G, Shapiro G, Zhang J, Shingo S, Reiss TF. Clinical safety and tolerability of montelukast, a leukotriene receptor antagonist, in controlled clinical trials in patients aged > or = 6 years. *Clin Exp Allergy* 2001;31(1):77–87.

Storms W, Chervinsky P, Ghannam AF, Bird S, Hustad CM, Edelman JM. A comparison of the effects of oral montelukast and inhaled salmeterol on response to rescue bronchodilation after challenge. *Respir Med* 2004;98(11):1051–1062.

Strachan DP, Cook DG. Health effects of passive smoking. 6. Parental smoking and childhood asthma: longitudinal and case-control studies. *Thorax* 1998;53(3):204–212.

Straub DA, Moeller A, Minocchieri S, Hamacher J, Sennhauser FH, Hall GL, Wildhaber JH. The effect of montelukast on lung function and exhaled nitric oxide in infants with early childhood asthma. *Eur Respir J* 2005;25(2):289–294.

Strauch E, Neupert T, Ihorst G, Storm Van's GK, Bohnet W, Hoeldke B, Karmaus W, Kuehr J. Bronchial hyperresponsiveness to 4.5% hypertonic saline indicates a past history of asthma-like symptoms in children. *Pediatr Pulmonol* 2001;31(1):44–50.

- Strauch E, Moske O, Thoma S, Storm Van's GK, Ihorst G, Brandis M, Kuehr J. A randomized controlled trial on the effect of montelukast on sputum eosinophil cationic protein in children with corticosteroid-dependent asthma. *Pediatr Res* 2003;54(2):198–203.
- Strauss L, Hejal R, Galan G, Dixon L, McFadden ER Jr. Observations on the effects of aerosolized albuterol in acute asthma. *Am J Respir Crit Care Med* 1997;155(2):454–458.
- Strunk RC, Sternberg AL, Bacharier LB, Szeffler SJ. Nocturnal awakening caused by asthma in children with mild-to-moderate asthma in the childhood asthma management program. *J Allergy Clin Immunol* 2002;110(3):395–403.
- Strunk RC, Bender B, Young DA, Sagel S, Glynn E, Caesar M, Lawhon C. Predictors of protocol adherence in a pediatric asthma clinical trial. *J Allergy Clin Immunol* 2002;110(4):596–602.
- Strunk RC, Szeffler SJ, Phillips BR, Zeiger RS, Chinchilli VM, Larsen G, Hodgdon K, Morgan W, Sorkness CA, Lemanske RF Jr. Relationship of exhaled nitric oxide to clinical and inflammatory markers of persistent asthma in children. *J Allergy Clin Immunol* 2003;112(5):883–892.
- Sturdy PM, Butland BK, Anderson HR, Ayres JG, Bland JM, Harrison BD, Peckitt C, Victor CR. Deaths certified as asthma and use of medical services: a national case-control study. *Thorax* 2005;60(11):909–915.
- Sturm JJ, Yeatts K, Loomis D. Effects of tobacco smoke exposure on asthma prevalence and medical care use in North Carolina middle school children. *Am J Public Health* 2004;94(2):308–313.
- Suessmuth S, Freihorst J, Gappa M. Low-dose theophylline in childhood asthma: a placebo-controlled, double-blind study. *Pediatr Allergy Immunol* 2003;14(5):394–400.
- Suissa S, Dennis R, Ernst P, Sheehy O, Wood-Dauphinee S. Effectiveness of the leukotriene receptor antagonist zafirlukast for mild-to-moderate asthma. A randomized, double-blind, placebo-controlled trial. *Ann Intern Med* 1997;126(3):177–183.
- Suissa S, Baltzan M, Kremer R, Ernst P. Inhaled and nasal corticosteroid use and the risk of fracture. *Am J Respir Crit Care Med* 2004;169(1):83–88.
- Sulit LG, Storfer-Isser A, Rosen CL, Kirchner HL, Redline S. Associations of obesity, sleep-disordered breathing, and wheezing in children. *Am J Respir Crit Care Med* 2005;171(6):659–664.
- Sullivan MD, Heywood BM, Beukelman DR. A treatment for vocal cord dysfunction in female athletes: an outcome study. *Laryngoscope* 2001;111(10):1751–1755.
- Sullivan SD, Weiss KB, Lynn H, Mitchell H, Kattan M, Gergen PJ, Evans R. The cost-effectiveness of an inner-city asthma intervention for children. *J Allergy Clin Immunol* 2002;110(4):576–581.
- Sullivan SD, Buxton M, Andersson LF, Lamm CJ, Liljas B, Chen YZ, Pauwels RA, Weiss KB. Cost-effectiveness analysis of early intervention with budesonide in mild persistent asthma. *J Allergy Clin Immunol* 2003;112(6):1229–1236.

Sullivan SD, Lee TA, Blough DK, Finkelstein JA, Lozano P, Inui TS, Fuhlbrigge AL, Carey VJ, Wagner E, Weiss KB. A multisite randomized trial of the effects of physician education and organizational change in chronic asthma care: cost-effectiveness analysis of the Pediatric Asthma Care Patient Outcomes Research Team II (PAC-PORT II). *Arch Pediatr Adolesc Med* 2005;159(5):428–434.

Sundberg R, Tunsater A, Palmqvist M, Ellbjar S, Lowhagen O, Toren K. A randomized controlled study of a computerized limited education program among young adults with asthma. *Respir Med* 2005;99(3):321–328.

Sung L, Osmond MH, Klassen TP. Randomized, controlled trial of inhaled budesonide as an adjunct to oral prednisone in acute asthma. *Acad Emerg Med* 1998;5(3):209–213.

Sunyer J, Spix C, Quenel P, Ponce-de-Leon A, Ponka A, Barumandzadeh T, Touloumi G, Bacharova L, Wojtyniak B, Vonk J, et al. Urban air pollution and emergency admissions for asthma in four European cities: the APHEA Project. *Thorax* 1997;52(9):760–765.

Sunyer J, Basagana X, Belmonte J, Anto JM. Effect of nitrogen dioxide and ozone on the risk of dying in patients with severe asthma. *Thorax* 2002;57(8):687–693.

Sunyer J, Atkinson R, Ballester F, Le Tertre A, Ayres JG, Forastiere F, Forsberg B, Vonk JM, Bisanti L, Anderson RH et al. Respiratory effects of sulphur dioxide: a hierarchical multicity analysis in the APHEA 2 study. *Occup Environ Med* 2003;60(8):e2.

Suzuki T, Hasegawa T, Suzuki E, Sasahara K, Kawada T, Koya T, Akazawa K, Satoh H, Gejyo F. Efficacy of fluticasone propionate compared with beclomethasone dipropionate in bronchial asthma: improvement in compliance and symptoms by fluticasone. *Allergy Asthma Proc* 2003;24(5):347–351.

Svedmyr J, Nyberg E, Thunqvist P, Asbrink-Nilsson E, Hedlin G. Prophylactic intermittent treatment with inhaled corticosteroids of asthma exacerbations due to airway infections in toddlers. *Acta Paediatr* 1999;88(1):42–47.

Swystun VA, Gordon JR, Davis EB, Zhang X, Cockcroft DW. Mast cell tryptase release and asthmatic responses to allergen increase with regular use of salbutamol. *J Allergy Clin Immunol* 2000;106(1 Pt 1):57–64.

Szeffler SJ, Warner J, Staab D, Wahn U, Le Bourgeois M, Essen-Zandvliet EE, Arora S, Pedersen S. Switching from conventional to extrafine aerosol beclomethasone dipropionate therapy in children: a 6-month, open-label, randomized trial. *J Allergy Clin Immunol* 2002;110(1):45–50.

Szeffler SJ, Martin RJ, King TS, Boushey HA, Cherniack RM, Chinchilli VM, Craig TJ, Dolovich M, Drazen JM, Fagan JK, et al.; Asthma Clinical Research Network of the National Heart Lung, and Blood Institute. Significant variability in response to inhaled corticosteroids for persistent asthma. *J Allergy Clin Immunol* 2002;109(3):410–418.

Szeffler SJ, Phillips BR, Martinez FD, Chinchilli VM, Lemanske RF, Strunk RC, Zeiger RS, Larsen G, Spahn JD, Bacharier LB, et al. Characterization of within-subject responses to fluticasone and montelukast in childhood asthma. *J Allergy Clin Immunol* 2005;115(2):233–242.

Szilagyi PG, Dick AW, Klein JD, Shone LP, Zwanziger J, Bajorska A, Yoos HL. Improved asthma care after enrollment in the State Children's Health Insurance Program in New York. *Pediatrics* 2006;117(2):486–496.

Takabayashi K, Tomita M, Tsumoto S, Suzuki T, Yamazaki S, Honda M, Satomura Y, Iwamoto I, Saito Y, Tomioka H. Computer-assisted instructions for patients with bronchial asthma. *Patient Educ Couns* 1999;38(3):241–248.

Takaro TK, Krieger JW, Song L. Effect of environmental interventions to reduce exposure to asthma triggers in homes of low-income children in Seattle. *J Expo Anal Environ Epidemiol* 2004;14 Suppl 1:S133–S143.

Tal A, Simon G, Vermeulen JH, Petru V, Cobos N, Everard ML, De Boeck K. Budesonide/formoterol in a single inhaler versus inhaled corticosteroids alone in the treatment of asthma. *Pediatr Pulmonol* 2002;34(5):342–350.

Tallia AF, Cardone DA. Asthma exacerbation associated with glucosamine-chondroitin supplement. *J Am Board Fam Pract* 2002;15(6):481–484.

Tamaoki J, Kondo M, Sakai N, Nakata J, Takemura H, Nagai A, Takizawa T, Konno K. Leukotriene antagonist prevents exacerbation of asthma during reduction of high-dose inhaled corticosteroid. The Tokyo Joshi-Idai Asthma Research Group. *Am J Respir Crit Care Med* 1997;155(4):1235–1240.

Tan KL, Eng P, Ong YY. Vocal cord dysfunction: two case reports. *Ann Acad Med Singapore* 1997;26(4):494–496.

Tan KS, McFarlane LC, Lipworth BJ. Paradoxical down-regulation and desensitization of beta<sub>2</sub>-adrenoceptors by exogenous progesterone in female asthmatics. *Chest* 1997;111(4):847–851.

Tan KS, Grove A, McLean A, Gnosselius Y, Hall IP, Lipworth BJ. Systemic corticosteroid rapidly reverses bronchodilator subsensitivity induced by formoterol in asthmatic patients. *Am J Respir Crit Care Med* 1997;156(1):28–35.

Tan WC, Lim KP, Ng TP, Chao TC, Ong YY, Chee YC. Long-term outcome and disease control in near-fatal asthma. *Ann Acad Med Singapore* 1999;28(3):384–388.

Tan WC, Xiang X, Qiu D, Ng TP, Lam SF, Hegele RG. Epidemiology of respiratory viruses in patients hospitalized with near-fatal asthma, acute exacerbations of asthma, or chronic obstructive pulmonary disease. *Am J Med* 2003;115(4):272–277.

Tancredi G, Quattrucci S, Scalercio F, De Castro G, Zicari AM, Bonci E, Cingolani S, Indinnimeo L, Midulla F. 3-min step test and treadmill exercise for evaluating exercise-induced asthma. *Eur Respir J* 2004;23(4):569–574.

Tanigaki T, Kondo T, Hayashi Y, Katoh H, Kamio K, Urano T, Ohta Y. Rapid response to inhaled frusemide in severe acute asthma with hypercapnia. *Respiration* 1997;64(1):108–110.

Tanihara S, Nakamura Y, Matsui T, Nishima S. A case-control study of asthma death and life-threatening attack: their possible relationship with prescribed drug therapy in Japan. *J Epidemiol* 2002;12(3):223–228.

Tantisira KG, Litonjua AA, Weiss ST, Fuhlbrigge AL. Association of body mass with pulmonary function in the Childhood Asthma Management Program (CAMP). *Thorax* 2003;58(12):1036–1041.

Tantisira KG, Hwang ES, Raby BA, Silverman ES, Lake SL, Richter BG, Peng SL, Drazen JM, Glimcher LH, Weiss ST. TBX21: a functional variant predicts improvement in asthma with the use of inhaled corticosteroids. *Proc Natl Acad Sci U S A* 2004;101(52):18099–18104.

Tarlo SM, Broder I, Corey P, Chan-Yeung M, Ferguson A, Becker A, Warren P, Simons FE, Sherlock C, Okada M, et al. A case-control study of the role of cold symptoms and other historical triggering factors in asthma exacerbations. *Can Respir J* 2000;7(1):42–48.

Tasche MJ, van der Wouden JC, Uijen JH, Ponsioen BP, Bernsen RM, Suijlekom-Smit LW, de Jongste JC. Randomised placebo-controlled trial of inhaled sodium cromoglycate in 1–4-year-old children with moderate asthma. *Lancet* 1997;350(9084):1060–1064.

Tashkin DP, Nathan RA, Howland WC, Minkwitz MC, Simonson SG, Bonuccelli CM. An evaluation of zafirlukast in the treatment of asthma with exploratory subset analyses. *J Allergy Clin Immunol* 1999;103(2 Pt 1):246–254.

Taskinen T, Meklin T, Nousiainen M, Husman T, Nevalainen A, Korppi M. Moisture and mould problems in schools and respiratory manifestations in schoolchildren: clinical and skin test findings. *Acta Paediatr* 1997;86(11):1181–1187.

Taskinen T, Hyvarinen A, Meklin T, Husman T, Nevalainen A, Korppi M. Asthma and respiratory infections in school children with special reference to moisture and mold problems in the school. *Acta Paediatr* 1999;88(12):1373–1379.

Tata LJ, West J, Harrison T, Farrington P, Smith C, Hubbard R. Does influenza vaccination increase consultations, corticosteroid prescriptions, or exacerbations in subjects with asthma or chronic obstructive pulmonary disease? *Thorax* 2003;58(10):835–839.

Tattersfield AE, Lofdahl CG, Postma DS, Eivindson A, Schreurs AG, Rasidakis A, Ekstrom T. Comparison of formoterol and terbutaline for as-needed treatment of asthma: a randomised trial. *Lancet* 2001;357(9252):257–261.

Tattersfield AE, Town GI, Johnell O, Picado C, Aubier M, Braillon P, Karlstrom R. Bone mineral density in subjects with mild asthma randomised to treatment with inhaled corticosteroids or non-corticosteroid treatment for two years. *Thorax* 2001;56(4):272–278.

Taylor DR, Hancox RJ, McRae W, Cowan JO, Flannery EM, McLachlan CR, Herbison GP. The influence of polymorphism at position 16 of the beta<sub>2</sub>-adrenoceptor on the development of tolerance to beta-agonist. *J Asthma* 2000;37(8):691–700.

Taylor DR, Drazen JM, Herbison GP, Yandava CN, Hancox RJ, Town GI. Asthma exacerbations during long term beta agonist use: influence of beta(2) adrenoceptor polymorphism. *Thorax* 2000;55(9):762–767.

ten Brinke A, van Dissel JT, Sterk PJ, Zwinderman AH, Rabe KF, Bel EH. Persistent airflow limitation in adult-onset nonatopic asthma is associated with serologic evidence of Chlamydia pneumoniae infection. *J Allergy Clin Immunol* 2001;107(3):449–454.

ten Brinke A, de Lange C, Zwinderman AH, Rabe KF, Sterk PJ, Bel EH. Sputum induction in severe asthma by a standardized protocol: predictors of excessive bronchoconstriction. *Am J Respir Crit Care Med* 2001;164(5):749–753.

ten Brinke A, Zwinderman AH, Sterk PJ, Rabe KF, Bel EH. Factors associated with persistent airflow limitation in severe asthma. *Am J Respir Crit Care Med* 2001;164(5):744–748.

ten Brinke A, Zwinderman AH, Sterk PJ, Rabe KF, Bel EH. "Refractory" eosinophilic airway inflammation in severe asthma: effect of parenteral corticosteroids. *Am J Respir Crit Care Med* 2004;170(6):601–605.

Teper AM, Colom AJ, Kofman CD, Maffey AF, Vidaurreta SM, Bergada I. Effects of inhaled fluticasone propionate in children less than 2 years old with recurrent wheezing. *Pediatr Pulmonol* 2004;37(2):111–115.

Teper AM, Kofman CD, Szulman GA, Vidaurreta SM, Maffey AF. Fluticasone improves pulmonary function in children under 2 years old with risk factors for asthma. *Am J Respir Crit Care Med* 2005;171(6):587–590.

Terada A, Fujisawa T, Togashi K, Miyazaki T, Katsumata H, Atsuta J, Iguchi K, Kamiya H, Togari H. Exhaled nitric oxide decreases during exercise-induced bronchoconstriction in children with asthma. *Am J Respir Crit Care Med* 2001;164(10 Pt 1):1879–1884.

Terzano C, Barkai L, Cremonesi G. Corticosteroids administered by nebulization to children with bronchial asthma. *Adv Ther* 2001;18(6):253–260.

Terzano C, Allegra L, Barkai L, Cremonesi G. Beclomethasone dipropionate versus budesonide inhalation suspension in children with mild to moderate persistent asthma. *Eur Rev Med Pharmacol Sci* 2001;5(1):17–24.

The ENFUMOSA Study Group. The ENFUMOSA cross-sectional European multicentre study of the clinical phenotype of chronic severe asthma. European Network for Understanding Mechanisms of Severe Asthma. *Eur Respir J* 2003;22(3):470–477.

Thole RT, Sallis RE, Rubin AL, Smith GN. Exercise-induced bronchospasm prevalence in collegiate cross-country runners. *Med Sci Sports Exerc* 2001;33(10):1641–1646.

Thomas JA, Potter MW, Counselman FL, Smith DG. Emergency physician practice and steroid use in the management of acute exacerbations of asthma. *Am J Emerg Med* 2001;19(6):465–468.

Thomas M, McKinley RK, Freeman E, Foy C, Prodger P, Price D. Breathing retraining for dysfunctional breathing in asthma: a randomised controlled trial. *Thorax* 2003;58(2):110–115.

Thomas P. Acute asthma. Emergency management in the community. *Aust Fam Physician* 2001;30(2):100–105.

Thomas PS, Gibson PG, Wang H, Shah S, Henry RL. The relationship of exhaled nitric oxide to airway inflammation and responsiveness in children. *J Asthma* 2005;42(4):291–295.

Thomson CC, Clark S, Camargo CA Jr. Body mass index and asthma severity among adults presenting to the emergency department. *Chest* 2003;124(3):795–802.

Thongngarm T, Silkoff PE, Kossack WS, Nelson HS. Hydrofluoroalkane-134A beclomethasone or chlorofluorocarbon fluticasone: effect on small airways in poorly controlled asthma. *J Asthma* 2005;42(4):257–263.

Thoonen BP, Schermer TR, Jansen M, Smeele I, Jacobs AJ, Grol R, van Schayck OC. Asthma education tailored to individual patient needs can optimise partnerships in asthma self-management. *Patient Educ Couns* 2002;47(4):355–360.

Thoonen BP, Schermer TR, Akkermans RP, den Otter JJ, Grol R, van Schayck OC. Willingness of patients to perform self-management of asthma and the role of inhaled steroids. *Scand J Prim Health Care* 2002;20(1):60–64.

Thoonen BP, Schermer TR, Van Den Boom G, Molema J, Folgering H, Akkermans RP, Grol R, Van Weel C, Van Schayck CP. Self-management of asthma in general practice, asthma control and quality of life: a randomised controlled trial. *Thorax* 2003;58(1):30–36.

Thorn J, Brisman J, Toren K. Adult-onset asthma is associated with self-reported mold or environmental tobacco smoke exposures in the home. *Allergy* 2001;56(4):287–292.

Thumerelle C, Deschildre A, Bouquillon C, Santos C, Sardet A, Scalbert M, Delbecque L, Debray P, Dewilde A, Turck D, et al. Role of viruses and atypical bacteria in exacerbations of asthma in hospitalized children: a prospective study in the Nord-Pas de Calais region (France). *Pediatr Pulmonol* 2003;35(2):75–82.

Thys F, Roeseler J, Delaere S, Palavecino L, El Gariani A, Marion E, Meert P, Danse E, D'Hoore W, Reynaert M. Two-level non-invasive positive pressure ventilation in the initial treatment of acute respiratory failure in an emergency department. *Eur J Emerg Med* 1999;6(3):207–214.

Tieffenberg JA, Wood EI, Alonso A, Tossutti MS, Vicente MF. A randomized field trial of ACINDES: a child-centered training model for children with chronic illnesses (asthma and epilepsy). *J Urban Health* 2000;77(2):280–297.

Tien I, Dorfman D, Kastner B, Bauchner H. Metered-dose inhaler: the emergency department orphan. *Arch Pediatr Adolesc Med* 2001;155(12):1335–1339.

Tierney WM, Roesner JF, Seshadri R, Lykens MG, Murray MD, Weinberger M. Assessing symptoms and peak expiratory flow rate as predictors of asthma exacerbations. *J Gen Intern Med* 2004;19(3):237–242.

Tillie-Leblond I, Pugin J, Marquette CH, Lamblin C, Saulnier F, Brichet A, Wallaert B, Tonnel AB, Gosset P. Balance between proinflammatory cytokines and their inhibitors in bronchial lavage from patients with status asthmaticus. *Am J Respir Crit Care Med* 1999;159(2):487–494.

Tillie-Leblond I, Hammad H, Desurmont S, Pugin J, Wallaert B, Tonnel AB, Gosset P. CC chemokines and interleukin-5 in bronchial lavage fluid from patients with status asthmaticus. Potential implication in eosinophil recruitment. *Am J Respir Crit Care Med* 2000;162(2 Pt 1):586–592.

Timonen KL, Schwartz J, Nielsen J, Brunekreef B. Associations between markers of respiratory morbidity in European children. *Eur Respir J* 2002;19(3):479–486.

Tinkelman DG, McClure DL, Lehr TL, Schwartz AL. Relationships between self-reported asthma utilization and patient characteristics. *J Asthma* 2002;39(8):729–736.

Todd GR, Acerini CL, Ross-Russell R, Zahra S, Warner JT, McCance D. Survey of adrenal crisis associated with inhaled corticosteroids in the United Kingdom. *Arch Dis Child* 2002;87(6):457–461.

Toelle BG, Xuan W, Peat JK, Marks GB. Childhood factors that predict asthma in young adulthood. *Eur Respir J* 2004;23(1):66–70.

Tohda Y, Fujimura M, Taniguchi H, Takagi K, Igarashi T, Yasuhara H, Takahashi K, Nakajima S. Leukotriene receptor antagonist, montelukast, can reduce the need for inhaled steroid while maintaining the clinical stability of asthmatic patients. *Clin Exp Allergy* 2002;32(8):1180–1186.

Tolbert PE, Mulholland JA, MacIntosh DL, Xu F, Daniels D, Devine OJ, Carlin BP, Klein M, Dorley J, Butler AJ, et al. Air quality and pediatric emergency room visits for asthma in Atlanta, Georgia, USA. *Am J Epidemiol* 2000;151(8):798–810.

Tomari S, Shimoda T, Kawano T, Mitsuta K, Obase Y, Fukushima C, Matsuse H, Kohno S. Effects of pranlukast, a cysteinyl leukotriene receptor 1 antagonist, combined with inhaled beclomethasone in patients with moderate or severe asthma. *Ann Allergy Asthma Immunol* 2001;87(2):156–161.

Tomlinson JE, McMahon AD, Chaudhuri R, Thompson JM, Wood SF, Thomson NC. Efficacy of low and high dose inhaled corticosteroid in smokers versus non-smokers with mild asthma. *Thorax* 2005;60(4):282–287.

Tomson Y, Hasselstrom J, Tomson G, Aberg H. Asthma education for Swedish primary care physicians—a study on the effects of "academic detailing" on practice and patient knowledge. *Eur J Clin Pharmacol* 1997;53(3–4):191–196.

Tonelli M, Zingoni M, Bacci E, Dente FL, Di Franco A, Giannini D, Taccola M, Vagaggini B, Paggiaro PL. Short-term effect of the addition of leukotriene receptor antagonists to the current therapy in severe asthmatics. *Pulm Pharmacol Ther* 2003;16(4):237–240.

Tonnel AB, Bons J, Legendre M, Prud'Homme A, Bugnas B, Evano-Celli I, Stuart AM. Clinical efficacy and safety of fluticasone propionate 250 microg twice daily administered via a HFA 134a pressurized metered dose inhaler to patients with mild to moderate asthma. French study group. *Respir Med* 2000;94 Suppl B:S29–S34.

Tonnel AB, Gosset P, Tillie-Leblond I. Characteristics of the Inflammatory response in bronchial lavage fluids from patients with status asthmaticus. *Int Arch Allergy Immunol* 2001;124(1–3):267–271.

- Tosca MA, Cosentino C, Pallestrini E, Riccio AM, Milanese M, Canonica GW, Ciprandi G. Medical treatment reverses cytokine pattern in allergic and nonallergic chronic rhinosinusitis in asthmatic children. *Pediatr Allergy Immunol* 2003;14(3):238–241.
- Tosca MA, Cosentino C, Pallestrini E, Caligo G, Milanese M, Ciprandi G. Improvement of clinical and immunopathologic parameters in asthmatic children treated for concomitant chronic rhinosinusitis. *Ann Allergy Asthma Immunol* 2003;91(1):71–78.
- Tough SC, Hessel PA, Ruff M, Green FH, Mitchell I, Butt JC. Features that distinguish those who die from asthma from community controls with asthma. *J Asthma* 1998;35(8):657–665.
- Tovt-Korshynska MI, Dew MA, Chooley IV, Spivak MY, Lemko IS. Gender differences in psychological distress in adults with asthma. *J Psychosom Res* 2001;51(5):629–637.
- Travers A, Jones AP, Kelly K, Barker SJ, Camargo CA, Rowe BH. Intravenous beta<sub>2</sub>-agonists for acute asthma in the emergency department. *Cochrane Database Syst Rev* 2001;(2):CD002988.
- Travers AH, Rowe BH, Barker S, Jones A, Camargo CA Jr. The effectiveness of IV beta-agonists in treating patients with acute asthma in the emergency department: a meta-analysis. *Chest* 2002;122(4):1200–1207.
- Trevillian LF, Ponsonby AL, Dwyer T, Kemp A, Cochrane J, Lim LL, Carmichael A. Infant sleeping environment and asthma at 7 years: a prospective cohort study. *Am J Public Health* 2005;95(12):2238–2245.
- Truitt T, Witko J, Halpern M. Levalbuterol compared to racemic albuterol: efficacy and outcomes in patients hospitalized with COPD or asthma. *Chest* 2003;123(1):128–135.
- Tsai YG, Lee MY, Yang KD, Chu DM, Yuh YS, Hung CH. A single dose of nebulized budesonide decreases exhaled nitric oxide in children with acute asthma. *J Pediatr* 2001;139(3):433–437.
- Tschopp JM, Frey JG, Pernet R, Burrus C, Jordan B, Morin A, Garrone S, Imhof K, Besse F, Marty S, et al. Bronchial asthma and self-management education: implementation of Guidelines by an interdisciplinary programme in health network. *Swiss Med Wkly* 2002;132(7–8):92–97.
- Tsitoura S, Nestoridou K, Botis P, Karmaus W, Botezan C, Bojarskas J, Arshad H, Kuehr J, Forster J. Randomized trial to prevent sensitization to mite allergens in toddlers and preschoolers by allergen reduction and education: one-year results. *Arch Pediatr Adolesc Med* 2002;156(10):1021–1027.
- Tsugeno H, Goto B, Fujita T, Okamoto M, Mifune T, Mitsunobu F, Ashida K, Hosaki Y, Tsuji T, Tanizaki Y. Oral glucocorticoid-induced fall in cortical bone volume and density in postmenopausal asthmatic patients. *Osteoporos Int* 2001;12(4):266–270.
- Tsugeno H, Tsugeno H, Fujita T, Goto B, Sugishita T, Hosaki Y, Ashida K, Mitsunobu F, Tanizaki Y, Shiratori Y. Vertebral fracture and cortical bone changes in corticosteroid-induced osteoporosis. *Osteoporos Int* 2002;13(8):650–656.

- Tug T, Kamanli A, Tug E. Effects of long-term inhaled steroid use on bone mineral density in asthma patients. *J Investig Allergol Clin Immunol* 2001;11(4):300–302.
- Tuggey JM, Hosker HS. Churg-Strauss syndrome associated with montelukast therapy. *Thorax* 2000;55(9):805–806.
- Tuomainen A, Seuri M, Sieppi A. Indoor air quality and health problems associated with damp floor coverings. *Int Arch Occup Environ Health* 2004;77(3):222–226.
- Turner MO, Johnston PR, Pizzichini E, Pizzichini MM, Hussack PA, Hargreave FE. Anti-inflammatory effects of salmeterol compared with beclomethasone in eosinophilic mild exacerbations of asthma: a randomized, placebo controlled trial. *Can Respir J* 1998;5(4):261–268.
- Turner MO, Noertjojo K, Vedral S, Bai T, Crump S, FitzGerald JM. Risk factors for near-fatal asthma. A case-control study in hospitalized patients with asthma. *Am J Respir Crit Care Med* 1998;157(6 Pt 1):1804–1809.
- Turner SW, Palmer LJ, Rye PJ, Gibson NA, Young S, Goldblatt J, Landau LI, Le Souef PN. Determinants of airway responsiveness to histamine in children. *Eur Respir J* 2005;25(3):462–467.
- Urata Y, Yoshida S, Irie Y, Tanigawa T, Amayasu H, Nakabayashi M, Akahori K. Treatment of asthma patients with herbal medicine TJ-96: a randomized controlled trial. *Respir Med* 2002;96(6):469–474.
- Urek MC, Tudoric N, Plavec D, Urek R, Koprivc-Milenovic T, Stojic M. Effect of educational programs on asthma control and quality of life in adult asthma patients. *Patient Educ Couns* 2005;58(1):47–54.
- Uri N, Cohen-Kerem R, Barzilai G, Greenberg E, Dowek I, Weiler-Ravell D. Functional endoscopic sinus surgery in the treatment of massive polyposis in asthmatic patients. *J Laryngol Otol* 2002;116(3):185–189.
- Vacek L. Incidence of exercise-induced asthma in high school population in British Columbia. *Allergy Asthma Proc* 1997;18(2):89–91.
- Vally H, Carr A, El Saleh J, Thompson P. Wine-induced asthma: a placebo-controlled assessment of its pathogenesis. *J Allergy Clin Immunol* 1999;103(1 Pt 1):41–46.
- Vamos M, Kolbe J. Psychological factors in severe chronic asthma. *Aust N Z J Psychiatry* 1999;33(4):538–544.
- van Bever HP, Chng SY, Goh DY. Childhood severe acute respiratory syndrome, coronavirus infections and asthma. *Pediatr Allergy Immunol* 2004;15(3):206–209.
- Van den Berg NJ, Ossip MS, Hederos CA, Anttila H, Ribeiro BL, Davies PI. Salmeterol/fluticasone propionate (50/100 microg) in combination in a Diskus inhaler (Seretide) is effective and safe in children with asthma. *Pediatr Pulmonol* 2000;30(2):97–105.

van den Berge M, Kerstjens HA, Meijer RJ, de Reus DM, Koeter GH, Kauffman HF, Postma DS. Corticosteroid-induced improvement in the PC<sub>20</sub> of adenosine monophosphate is more closely associated with reduction in airway inflammation than improvement in the PC<sub>20</sub> of methacholine. *Am J Respir Crit Care Med* 2001;164(7):1127–1132.

van den Berge M, Meijer RJ, Kerstjens HA, de Reus DM, Koeter GH, Kauffman HF, Postma DS. PC(20) adenosine 5'-monophosphate is more closely associated with airway inflammation in asthma than PC(20) methacholine. *Am J Respir Crit Care Med* 2001;163(7):1546–1550.

van den Toorn LM, Prins JB, Overbeek SE, Hoogsteden HC, de Jongste JC. Adolescents in clinical remission of atopic asthma have elevated exhaled nitric oxide levels and bronchial hyperresponsiveness. *Am J Respir Crit Care Med* 2000;162(3 Pt 1):953–957.

van den Toorn LM, Overbeek SE, de Jongste JC, Leman K, Hoogsteden HC, Prins JB. Airway inflammation is present during clinical remission of atopic asthma. *Am J Respir Crit Care Med* 2001;164(11):2107–2113.

Van Der Heide S., Kauffman HF, Dubois AE, De Monchy JG. Allergen-avoidance measures in homes of house-dust-mite-allergic asthmatic patients: effects of acaricides and mattress encasings. *Allergy* 1997;52(9):921–927.

Van Der Heide S, Kauffman HF, Dubois AE, De Monchy JG. Allergen reduction measures in houses of allergic asthmatic patients: effects of air-cleaners and allergen-impermeable mattress covers. *Eur Respir J* 1997;10(6):1217–1223.

Van Der Heide S, van Aalderen WM, Kauffman HF, Dubois AE, De Monchy JG. Clinical effects of air cleaners in homes of asthmatic children sensitized to pet allergens. *J Allergy Clin Immunol* 1999;104(2 Pt 1):447–451.

van der Palen J., Klein JJ, Kerkhoff AH, van Herwaarden CL, Seydel ER. Evaluation of the long-term effectiveness of three instruction modes for inhaling medicines. *Patient Educ Couns* 1997;32(1 Suppl):S87–S95.

van der Palen J., Klein JJ, Zielhuis GA, van Herwaarden CL, Seydel ER. Behavioural effect of self-treatment guidelines in a self-management program for adults with asthma. *Patient Educ Couns* 2001;43(2):161–169.

Van der Touw T, Mudaliar Y, Nayyar V. Cardiorespiratory effects of manually compressing the rib cage during tidal expiration in mechanically ventilated patients recovering from acute severe asthma. *Crit Care Med* 1998;26(8):1361–1367.

van der Woude HJ, Winter TH, Aalbers R. Decreased bronchodilating effect of salbutamol in relieving methacholine induced moderate to severe bronchoconstriction during high dose treatment with long acting beta<sub>2</sub> agonists. *Thorax* 2001;56(7):529–535.

van Es SM, Nagelkerke AF, Colland VT, Scholten RJ, Bouter LM. An intervention programme using the ASE-model aimed at enhancing adherence in adolescents with asthma. *Patient Educ Couns* 2001;44(3):193–203.

van Schalkwyk E, Strydom K, Williams Z, Venter L, Leichtl S, Schmid-Wirlitsch C, Bredenbroker D, Bardin PG. Roflumilast, an oral, once-daily phosphodiesterase 4 inhibitor, attenuates allergen-induced asthmatic reactions. *J Allergy Clin Immunol* 2005;116(2):292–298.

Van Schayck CP, Der Heijden FM, Van Den Boom G, Tirimanna PR, van Herwaarden CL. Underdiagnosis of asthma: is the doctor or the patient to blame? The DIMCA project. *Thorax* 2000;55(7):562–565.

Van Schayck CP, Cloosterman SG, Bijl-Hofland ID, van den Hoogen H, Folgering HT, Van Weel C. Is the increase in bronchial responsiveness or FEV<sub>1</sub> shortly after cessation of beta<sub>2</sub>-agonists reflecting a real deterioration of the disease in allergic asthmatic patients? A comparison between short-acting and long-acting beta<sub>2</sub>-agonists. *Respir Med* 2002;96(3):155–162.

van Strien RT, Gent JF, Belanger K, Triche E, Bracken MB, Leaderer BP. Exposure to NO<sub>2</sub> and nitrous acid and respiratory symptoms in the first year of life. *Epidemiology* 2004;15(4):471–478.

van Strien RT, Engel R, Holst O, Bufe A, Eder W, Waser M, Braun-Fahrlander C, Riedler J, Nowak D, von Mutius E. Microbial exposure of rural school children, as assessed by levels of N-acetyl-muramic acid in mattress dust, and its association with respiratory health. *J Allergy Clin Immunol* 2004;113(5):860–867.

van Veen A, Weller FR, Wierenga EA, Jansen HM, Jonkers RE. A comparison of salmeterol and formoterol in attenuating airway responses to short-acting beta<sub>2</sub>-agonists. *Pulm Pharmacol Ther* 2003;16(3):153–161.

van Veldhoven NH, Vermeer A, Bogaard JM, Hessels MG, Wijnroks L, Colland VT, Essen-Zandvliet EE. Children with asthma and physical exercise: effects of an exercise programme. *Clin Rehabil* 2001;15(4):360–370.

Vanto T, Hamalainen KM, Vahteristo M, Wille S, Nja F, Hyldebrandt N. Comparison of two budesonide dry powder inhalers in the treatment of asthma in children. *J Aerosol Med* 2004;17(1):15–24.

Vaquerizo MJ, Casan P, Castillo J, Perpina M, Sanchis J, Sobradillo V, Valencia A, Verea H, Viejo JL, Villasante C, et al.; CASIOPEA (Capacidad de Singulair Oral en la Prevencion de Exacerbaciones Asmaticas) Study Group. Effect of montelukast added to inhaled budesonide on control of mild to moderate asthma. *Thorax* 2003;58(3):204–210.

Vargas MH, Ruiz-Gutierrez HH, Espinosa-Serafin C, Zuniga-Vazquez G, Furuya ME. Underestimation of the peak flow variability in asthmatic children: evaluation of a new formula. *Pediatr Pulmonol* 2005;39(4):325–331.

Vedanthan PK, Kesavalu LN, Murthy KC, Duvall K, Hall MJ, Baker S, Nagarathna S. Clinical study of yoga techniques in university students with asthma: a controlled study. *Allergy Asthma Proc* 1998;19(1):3–9.

Velsor-Friedrich B, Foley MK. School-based management of the child with an acute asthma episode. *AACN Clin Issues* 2001;12(2):282–292.

Velsor-Friedrich B, Pigott T, Srof B. A practitioner-based asthma intervention program with African American inner-city school children. *J Pediatr Health Care* 2005;19(3):163–171.

Venables KM, Allitt U, Collier CG, Emberlin J, Greig JB, Hardaker PJ, Highham JH, Laing-Morton T, Maynard RL, Murray V, et al. Thunderstorm-related asthma—the epidemic of 24/25 June 1994. *Clin Exp Allergy* 1997;27(7):725–736.

Veninga CC, Denig P, Zwaagstra R, Haaijer-Ruskamp FM. Improving drug treatment in general practice. *J Clin Epidemiol* 2000;53(7):762–772.

Venn AJ, Lewis SA, Cooper M, Hubbard R, Britton J. Living near a main road and the risk of wheezing illness in children. *Am J Respir Crit Care Med* 2001;164(12):2177–2180.

Vanners SA, Wang X, Chen C, Wang B, Ni J, Jin Y, Yang J, Fang Z, Weiss ST, Xu X. Exposure-response relationship between paternal smoking and children's pulmonary function. *Am J Respir Crit Care Med* 2001;164(6):973–976.

Verbeek PR, Chopra A. Heliox does not improve FEV<sub>1</sub> in acute asthma patients. *J Emerg Med* 1998;16(4):545–548.

Verini M, Rossi N, Dalfino T, Verrotti A, Di Gioacchino M, Chiarelli F. Lack of correlation between clinical patterns of asthma and airway obstruction. *Allergy Asthma Proc* 2001;22(5):297–302.

Verona E, Petrov D, Cserhati E, Hofman J, Geppe N, Medley H, Hughes S. Fluticasone propionate in asthma: a long term dose comparison study. *Arch Dis Child* 2003;88(6):503–509.

Verstraeten T, Jumaan AO, Mullooly JP, Seward JF, Izurieta HS, DeStefano F, Black SB, Chen RT. A retrospective cohort study of the association of varicella vaccine failure with asthma, steroid use, age at vaccination, and measles-mumps-rubella vaccination. *Pediatrics* 2003;112(2):e98–103.

Vidal C, Fernandez-Ovide E, Pineiro J, Nunez R, Gonzalez-Quintela A. Comparison of montelukast versus budesonide in the treatment of exercise-induced bronchoconstriction. *Ann Allergy Asthma Immunol* 2001;86(6):655–658.

Vieillard-Baron A, Jardin F. The issue of dynamic hyperinflation in acute respiratory distress syndrome patients. *Eur Respir J Suppl* 2003;42:43s–47s.

Vignola AM, Humbert M, Bousquet J, Boulet LP, Hedgecock S, Blogg M, Fox H, Surrey K. Efficacy and tolerability of anti-immunoglobulin E therapy with omalizumab in patients with concomitant allergic asthma and persistent allergic rhinitis: SOLAR. *Allergy* 2004;59(7):709–717.

Vilsvik J, Ankerst J, Palmqvist M, Persson G, Schaanning J, Schwabe G, Johansson A. Protection against cold air and exercise-induced bronchoconstriction while on regular treatment with Oxis. *Respir Med* 2001;95(6):484–490.

Vincent D, Cohen-Jonathan AM, Leport J, Merrouche M, Geronimi A, Pradalier A, Soule JC. Gastro-oesophageal reflux prevalence and relationship with bronchial reactivity in asthma. *Eur Respir J* 1997;10(10):2255–2259.

Vollmer WM, Markson LE, O'Connor E, Frazier EA, Berger M, Buist AS. Association of asthma control with health care utilization: a prospective evaluation. *Am J Respir Crit Care Med* 2002;165(2):195–199.

Volovitz B, Bentur L, Finkelstein Y, Mansour Y, Shalitin S, Nussinovitch M, Varsano I. Effectiveness and safety of inhaled corticosteroids in controlling acute asthma attacks in children who were treated in the emergency department: a controlled comparative study with oral prednisolone. *J Allergy Clin Immunol* 1998;102(4 Pt 1):605–609.

Volovitz B, Nussinovitch M, Finkelstein Y, Harel L, Varsano I. Effectiveness of inhaled corticosteroids in controlling acute asthma exacerbations in children at home. *Clin Pediatr (Phila)* 2001;40(2):79–86.

Volovitz B, Nussinovitch M. Management of children with severe asthma exacerbation in the emergency department. *Paediatr Drugs* 2002;4(3):141–148.

Volovitz B, Friedman N, Levin S, Kertes J, Iny-Cordova S, Nussinovitch M, Meytes D, Kokia E. Increasing asthma awareness among physicians: impact on patient management and satisfaction. *J Asthma* 2003;40(8):901–908.

von Berg A, Gappa M, Steinkamp G. Fluticasone for the treatment of symptomatic bronchial asthma in children treated with sodium cromoglycate—a prospective, randomised trial. *Eur J Med Res* 2002;7(6):257–264.

von Berg A, Papageorgiou SF, Wille S, Carrillo T, Kattamis C, Helms PJ. Efficacy and tolerability of formoterol Turbuhaler in children. *Int J Clin Pract* 2003;57(10):852–856.

Von Hertzen L, Toyryla M, Gimishanov A, Bloigu A, Leinonen M, Saikku P, Haahtela T. Asthma, atopy and Chlamydia pneumoniae antibodies in adults. *Clin Exp Allergy* 1999;29(4):522–528.

von Mutius E, Schwartz J, Neas LM, Dockery D, Weiss ST. Relation of body mass index to asthma and atopy in children: the National Health and Nutrition Examination Study III. *Thorax* 2001;56(11):835–838.

Vondra V, Sladek K, Kotasova J, Terl M, Rossetti A, Cantini L. A new HFA-134a propellant in the administration of inhaled BDP via the Jet spacer: controlled clinical trial vs the conventional CFC. *Respir Med* 2002;96(10):784–789.

Wahlen BM, Bey T, Wolke BB. Measurement of end-tidal carbon dioxide in spontaneously breathing patients in the pre-hospital setting. A prospective evaluation of 350 patients. *Resuscitation* 2003;56(1):35–40.

Wahlgren DR, Hovell MF, Meltzer SB, Hofstetter CR, Zakarian JM. Reduction of environmental tobacco smoke exposure in asthmatic children. A 2-year follow-up. *Chest* 1997;111(1):81–88.

Wakefield M, Staugas R, Ruffin R, Campbell D, Beilby J, McCaul K. Risk factors for repeat attendance at hospital emergency departments among adults and children with asthma. *Aust N Z J Med* 1997;27(3):277–284.

Wakefield M, Banham D, McCaul K, Martin J, Ruffin R, Badcock N, Roberts L. Effect of feedback regarding urinary cotinine and brief tailored advice on home smoking restrictions among low-income parents of children with asthma: a controlled trial. *Prev Med* 2002;34(1):58–65.

Walders N, Kercsmar C, Schluchter M, Redline S, Kirchner HL, Drotar D. An interdisciplinary intervention for undertreated pediatric asthma. *Chest* 2006;129(2):292–299.

Walker S, Monteil M, Phelan K, Lasserson TJ, Walters EH. Anti-IgE for chronic asthma. *Cochrane Database Syst Rev* 2003;(3):CD003559.

Walsh LJ, Wong CA, Oborne J, Cooper S, Lewis SA, Pringle M, Hubbard R, Tattersfield AE. Adverse effects of oral corticosteroids in relation to dose in patients with lung disease. *Thorax* 2001;56(4):279–284.

Walter MJ, Morton JD, Kajiwara N, Agapov E, Holtzman MJ. Viral induction of a chronic asthma phenotype and genetic segregation from the acute response. *J Clin Invest* 2002;110(2):165–175.

Walters JA, Wood-Baker R, Walters EH. Long-acting beta<sub>2</sub>-agonists in asthma: an overview of Cochrane systematic reviews. *Respir Med* 2005;99(4):384–395.

Wamboldt FS, Ho J, Milgrom H, Wamboldt MZ, Sanders B, Szefler SJ, Bender BG. Prevalence and correlates of household exposures to tobacco smoke and pets in children with asthma. *J Pediatr* 2002;141(1):109–115.

Wamboldt MZ, Fritz G, Mansell A, McQuaid EL, Klein RB. Relationship of asthma severity and psychological problems in children. *J Am Acad Child Adolesc Psychiatry* 1998;37(9):943–950.

Ward GW Jr, Woodfolk JA, Hayden ML, Jackson S, Platts-Mills TA. Treatment of late-onset asthma with fluconazole. *J Allergy Clin Immunol* 1999;104(3 Pt 1):541–546.

Wardlaw A, Larivee P, Eller J, Cockcroft DW, Ghaly L, Harris AG. Efficacy and safety of mometasone furoate dry powder inhaler vs fluticasone propionate metered-dose inhaler in asthma subjects previously using fluticasone propionate. *Ann Allergy Asthma Immunol* 2004;93(1):49–55.

Waring WS, Leigh RB. Haemodynamic responses to salbutamol and isometric exercise are altered in young adults with mild asthma. *Eur J Clin Pharmacol* 2005;61(1):9–14.

Wark P, Wilson AW, Gibson PG. Azoles for allergic bronchopulmonary aspergillosis associated with asthma. *Cochrane Database Syst Rev* 2001;(4):CD001108.

Wark PA, Gibson PG, Fakes K. Induced sputum eosinophils in the assessment of asthma and chronic cough. *Respirology* 2000;5(1):51–57.

Wark PA, Gibson PG, Johnston SL. Exacerbations of asthma: addressing the triggers and treatments. *Monaldi Arch Chest Dis* 2001;56(5):429–435.

Wark PA, Johnston SL, Simpson JL, Hensley MJ, Gibson PG. Chlamydia pneumoniae immunoglobulin A reactivation and airway inflammation in acute asthma. *Eur Respir J* 2002;20(4):834–840.

Wark PA, Gibson PG, Wilson AJ. Azoles for allergic bronchopulmonary aspergillosis associated with asthma. *Cochrane Database Syst Rev* 2003;(3):CD001108.

Warke TJ, Mairs V, Fitch PS, McGovern V, Ennis M, Shields MD. Exhaled nitric oxide in relation to the clinical features of childhood asthma. *J Asthma* 2004;41(7):751–757.

Warman KL, Silver EJ, McCourt MP, Stein RE. How does home management of asthma exacerbations by parents of inner-city children differ from NHLBI guideline recommendations? National Heart, Lung, and Blood Institute. *Pediatrics* 1999;103(2):422–427.

Warner JA, Frederick JM, Bryant TN, Weich C, Raw GJ, Hunter C, Stephen FR, McIntyre DA, Warner JO. Mechanical ventilation and high-efficiency vacuum cleaning: A combined strategy of mite and mite allergen reduction in the control of mite-sensitive asthma. *J Allergy Clin Immunol* 2000;105(1 Pt 1):75–82.

Waser M, von Mutius E, Riedler J, Nowak D, Maisch S, Carr D, Eder W, Tebow G, Schierl R, Schreuer M, et al. Exposure to pets, and the association with hay fever, asthma, and atopic sensitization in rural children. *Allergy* 2005;60(2):177–184.

Wazeka A, Valacer DJ, Cooper M, Caplan DW, DiMaio M. Impact of a pediatric asthma clinical pathway on hospital cost and length of stay. *Pediatr Pulmonol* 2001;32(3):211–216.

Webber MP, Hoxie AM, Odlum M, Oruwariye T, Lo Y, Appel D. Impact of asthma intervention in two elementary school-based health centers in the Bronx, New York City. *Pediatr Pulmonol* 2005;40(6):487–493.

Weber EJ, Silverman RA, Callaham ML, Pollack CV, Woodruff PG, Clark S, Camargo CA Jr. A prospective multicenter study of factors associated with hospital admission among adults with acute asthma. *Am J Med* 2002;113(5):371–378.

Wechsler ME, Garpestad E, Flier SR, Kocher O, Weiland DA, Polito AJ, Klinek MM, Bigby TD, Wong GA, Helmers RA, et al. Pulmonary infiltrates, eosinophilia, and cardiomyopathy following corticosteroid withdrawal in patients with asthma receiving zafirlukast. *JAMA* 1998;279(6):455–457.

Weiler JM, Nathan RA, Rupp NT, Kalberg CJ, Emmett A, Dorinsky PM. Effect of fluticasone/salmeterol administered via a single device on exercise-induced bronchospasm in patients with persistent asthma. *Ann Allergy Asthma Immunol* 2005;94(1):65–72.

Weinberg EG, Naya I. Treatment preferences of adolescent patients with asthma. *Pediatr Allergy Immunol* 2000;11(1):49–55.

Weinberger M, Murray MD, Marrero DG, Brewer N, Lykens M, Harris LE, Seshadri R, Caffrey H, Roesner JF, Smith F, et al. Effectiveness of pharmacist care for patients with reactive airways disease: a randomized controlled trial. *JAMA* 2002;288(13):1594–1602.

Weiner P, Berar-Yanay N, Davidovich A, Magadle R, Weiner M. Specific inspiratory muscle training in patients with mild asthma with high consumption of inhaled beta(2)-agonists. *Chest* 2000;117(3):722–727.

Weiner P, Magadle R, Beckerman M, Berar-Yanay N. The relationship among inspiratory muscle strength, the perception of dyspnea and inhaled beta<sub>2</sub>-agonist use in patients with asthma. *Can Respir J* 2002;9(5):307–312.

Weiner P, Magadle R, Massarwa F, Beckerman M, Berar-Yanay N. Influence of gender and inspiratory muscle training on the perception of dyspnea in patients with asthma. *Chest* 2002;122(1):197–201.

Weinfeld D, Ternesten-Hasseus E, Lowhagen O, Millqvist E. Capsaicin cough sensitivity in allergic asthmatic patients increases during the birch pollen season. *Ann Allergy Asthma Immunol* 2002;89(4):419–424.

Weir M. Vocal cord dysfunction mimics asthma and may respond to heliox. *Clin Pediatr (Phila)* 2002;41(1):37–41.

Weiss KB, Liljas B, Schoenwetter W, Schatz M, Luce BR. Effectiveness of budesonide administered via dry-powder inhaler versus triamcinolone acetonide administered via pressurized metered-dose inhaler for adults with persistent asthma in managed care settings. *Clin Ther* 2004;26(1):102–114.

Weksler N, Brill S, Tarnapolski A, Gurman GM. Intranasal salbutamol instillation in asthma attack. *Am J Emerg Med* 1999;17(7):686–688.

Wen MC, Wei CH, Hu ZQ, Srivastava K, Ko J, Xi ST, Mu DZ, Du JB, Li GH, Wallenstein S, et al. Efficacy and tolerability of anti-asthma herbal medicine intervention in adult patients with moderate-severe allergic asthma. *J Allergy Clin Immunol* 2005;116(3):517–524.

Wensley D, Silverman M. Peak flow monitoring for guided self-management in childhood asthma: a randomized controlled trial. *Am J Respir Crit Care Med* 2004;170(6):606–612.

Wesseldine LJ, McCarthy P, Silverman M. Structured discharge procedure for children admitted to hospital with acute asthma: a randomised controlled trial of nursing practice. *Arch Dis Child* 1999;80(2):110–114.

Wever-Hess J, Kouwenberg JM, Duiverman EJ, Hermans J, Wever AM. Risk factors for exacerbations and hospital admissions in asthma of early childhood. *Pediatr Pulmonol* 2000;29(4):250–256.

White M, Michaud G, Pachev G, Lirenman D, Kolenc A, FitzGerald JM. Randomized trial of problem-based versus didactic seminars for disseminating evidence-based guidelines on asthma management to primary care physicians. *J Contin Educ Health Prof* 2004;24(4):237–243.

Wickens K, Barry D, Friezema A, Rhodius R, Bone N, Purdie G, Crane J. Fast foods—are they a risk factor for asthma? *Allergy* 2005;60(12):1537–1541.

Wickens K, Barry D, Friezema A, Rhodius R, Bone N, Purdie G, Crane J. Obesity and asthma in 11–12 year old New Zealand children in 1989 and 2000. *Thorax* 2005;60(1):7–12.

Wieslander G, Norback D, Bjornsson E, Janson C, Boman G. Asthma and the indoor environment: the significance of emission of formaldehyde and volatile organic compounds from newly painted indoor surfaces. *Int Arch Occup Environ Health* 1997;69(2):115–124.

Wieslander G, Norback D, Edling C. Airway symptoms among house painters in relation to exposure to volatile organic compounds (VOCS)—a longitudinal study. *Ann Occup Hyg* 1997;41(2):155–166.

Wijnhoven HA, Kriegerman DM, Hesselink AE, Penninx BW, de Haan M. Determinants of different dimensions of disease severity in asthma and COPD: pulmonary function and health-related quality of life. *Chest* 2001;119(4):1034–1042.

Wijnhoven HA, Kriegerman DM, Snoek FJ, Hesselink AE, de Haan M. Gender differences in health-related quality of life among asthma patients. *J Asthma* 2003;40(2):189–199.

Wilber ST, Wilson JE, Blanda M, Gerson LW, Meerbaum SO, Janas G. The bronchodilator effect of intravenous glucagon in asthma exacerbation: a randomized, controlled trial. *Ann Emerg Med* 2000;36(5):427–431.

Willers S, Axmon A, Feyerabend C, Nielsen J, Skarping G, Skerfving S. Assessment of environmental tobacco smoke exposure in children with asthmatic symptoms by questionnaire and cotinine concentrations in plasma, saliva, and urine. *J Clin Epidemiol* 2000;53(7):715–721.

Williams B, Noonan G, Reiss TF, Knorr B, Guerra J, White R, Matz J. Long-term asthma control with oral montelukast and inhaled beclomethasone for adults and children 6 years and older. *Clin Exp Allergy* 2001;31(6):845–854.

Williams J, Williams K. Asthma-specific quality of life questionnaires in children: are they useful and feasible in routine clinical practice? *Pediatr Pulmonol* 2003;35(2):114–118.

Williams LK, Pladevall M, Xi H, Peterson EL, Joseph C, Lafata JE, Ownby DR, Johnson CC. Relationship between adherence to inhaled corticosteroids and poor outcomes among adults with asthma. *J Allergy Clin Immunol* 2004;114(6):1288–1293.

Wilson AM, Dempsey OJ, Sims EJ, Lipworth BJ. Evaluation of salmeterol or montelukast as second-line therapy for asthma not controlled with inhaled corticosteroids. *Chest* 2001;119(4):1021–1026.

Wilson MM, Irwin RS, Connolly AE, Linden C, Manno MM. A prospective evaluation of the 1-hour decision point for admission versus discharge in acute asthma. *J Intensive Care Med* 2003;18(5):275–285.

Wilson NW, Robinson NP, Hogan MB. Cockroach and other inhalant allergies in infantile asthma. *Ann Allergy Asthma Immunol* 1999;83(1):27–30.

Wilson SE, Kahn RS, Khouri J, Lanphear BP. Racial differences in exposure to environmental tobacco smoke among children. *Environ Health Perspect* 2005;113(3):362–367.

Wilson SR, Yamada EG, Sudhakar R, Roberto L, Mannino D, Mejia C, Huss N. A controlled trial of an environmental tobacco smoke reduction intervention in low-income children with asthma. *Chest* 2001;120(5):1709–1722.

Winkelstein ML, Tarzian A, Wood RA. Parental smoking behavior and passive smoke exposure in children with asthma. *Ann Allergy Asthma Immunol* 1997;78(4):419–423.

Winterton DL, Kaufman J, Keener CV, Quigley S, Farin FM, Williams PV, Koenig JQ. Genetic polymorphisms as biomarkers of sensitivity to inhaled sulfur dioxide in subjects with asthma. *Ann Allergy Asthma Immunol* 2001;86(2):232–238.

Wisnivesky JP, Leventhal H, Halm EA. Predictors of asthma-related health care utilization and quality of life among inner-city patients with asthma. *J Allergy Clin Immunol* 2005;116(3):636–642.

Withers NJ, Low L, Holgate ST, Clough JB. The natural history of respiratory symptoms in a cohort of adolescents. *Am J Respir Crit Care Med* 1998;158(2):352–357.

Witt K, Knudsen E, Ditlevsen S, Hollnagel H. Academic detailing has no effect on prescribing of asthma medication in Danish general practice: a 3-year randomized controlled trial with 12-monthly follow-ups. *Fam Pract* 2004;21(3):248–253.

Wolfe J, Rooklin A, Grady J, Munk ZM, Stevens A, Prillaman B, Duke S, Harding S. Comparison of once- and twice-daily dosing of fluticasone propionate 200 micrograms per day administered by diskus device in patients with asthma treated with or without inhaled corticosteroids. *J Allergy Clin Immunol* 2000;105(6 Pt 1):1153–1161.

Wolfe J, Kreitzer S, Chervinsky P, Lawrence M, Wang Y, Reilly D, Davis S, Stahl E. Comparison of powder and aerosol formulations of salmeterol in the treatment of asthma. *Ann Allergy Asthma Immunol* 2000;84(3):334–340.

Wolfe J, LaForce C, Friedman B, Sokol W, Till D, Della Cioppa G, van As A. Formoterol, 24 microg bid, and serious asthma exacerbations: similar rates compared with formoterol, 12 microg bid, with and without extra doses taken on demand, and placebo. *Chest* 2006;129(1):27–38.

Wolfe JM, Meth BM. Vocal cord dysfunction mimicking a severe asthma attack. *J Emerg Med* 1999;17(1):39–41.

Wolfenden LL, Diette GB, Skinner EA, Steinwachs DM, Wu AW. Gaps in asthma care of the oldest adults. *J Am Geriatr Soc* 2002;50(5):877–883.

Wolfenden LL, Diette GB, Krishnan JA, Skinner EA, Steinwachs DM, Wu AW. Lower physician estimate of underlying asthma severity leads to undertreatment. *Arch Intern Med* 2003;163(2):231–236.

Wong CA, Walsh LJ, Smith CJ, Wisniewski AF, Lewis SA, Hubbard R, Cawte S, Green DJ, Pringle M, Tattersfield AE. Inhaled corticosteroid use and bone-mineral density in patients with asthma. *Lancet* 2000;355(9213):1399–1403.

Wong JY, Zacharin MR, Hocking N, Robinson PJ. Growth and adrenal suppression in asthmatic children on moderate to high doses of fluticasone propionate. *J Paediatr Child Health* 2002;38(1):59–62.

Wood RA, Johnson EF, Van Natta ML, Chen PH, Eggleston PA. A placebo-controlled trial of a HEPA air cleaner in the treatment of cat allergy. *Am J Respir Crit Care Med* 1998;158(1):115–120.

Woodcock A, Williams A, Batty L, Masterson C, Rossetti A, Cantini L. Effects on lung function, symptoms, and bronchial hyperreactivity of low-dose inhaled beclomethasone dipropionate given with HFA-134a or CFC propellant. *J Aerosol Med* 2002;15(4):407–414.

Woodcock A, Forster L, Matthews E, Martin J, Letley L, Vickers M, Britton J, Strachan D, Howarth P, Altmann D, et al. Control of exposure to mite allergen and allergen-impermeable bed covers for adults with asthma. *N Engl J Med* 2003;349(3):225–236.

Woodruff PG, Emond SD, Singh AK, Camargo CA Jr. Sudden-onset severe acute asthma: clinical features and response to therapy. *Acad Emerg Med* 1998;5(7):695–701.

Worth H, Muir JF, Pieters WR. Comparison of hydrofluoroalkane-beclomethasone dipropionate Autohaler with budesonide Turbuhaler in asthma control. *Respiration* 2001;68(5):517–526.

Wraight JM, Hancox RJ, Herbison GP, Cowan JO, Flannery EM, Taylor DR. Bronchodilator tolerance: the impact of increasing bronchoconstriction. *Eur Respir J* 2003;21(5):810–815.

Wraight JM, Smith AD, Cowan JO, Flannery EM, Herbison GP, Taylor DR. Adverse effects of short-acting beta-agonists: potential impact when anti-inflammatory therapy is inadequate. *Respirology* 2004;9(2):215–221.

Wright J, Warren E, Reeves J, Bibby J, Harrison S, Dowswell G, Russell I, Russell D. Effectiveness of multifaceted implementation of guidelines in primary care. *J Health Serv Res Policy* 2003;8(3):142–148.

Wright RO, Santucci KA, Jay GD, Steele DW. Evaluation of pre- and posttreatment pulse oximetry in acute childhood asthma. *Acad Emerg Med* 1997;4(2):114–117.

Wu RS, Wu KC, Wong TK, Tsai YH, Cheng RK, Bishop MJ, Tan PP. Effects of fenoterol and ipratropium on respiratory resistance of asthmatics after tracheal intubation. *Br J Anaesth* 2000;84(3):358–362.

Wu X, Dev A, Leong AB. Zileuton, a 5-lipoxygenase inhibitor, increases production of thromboxane A<sub>2</sub> and platelet aggregation in patients with asthma. *Am J Hematol* 2003;74(1):23–25.

Xatzipsalti M, Kyrana S, Tsolia M, Psarras S, Bossios A, Laza-Stanca V, Johnston SL, Papadopoulos NG. Rhinovirus viremia in children with respiratory infections. *Am J Respir Crit Care Med* 2005;172(8):1037–1040.

Xepapadaki P, Papadopoulos NG, Bossios A, Manoussakis E, Manousakas T, Saxon-Papageorgiou P. Duration of postviral airway hyperresponsiveness in children with asthma: effect of atopy. *J Allergy Clin Immunol* 2005;116(2):299–304.

Yamamoto LG, Okamura D, Nagamine J, Boychuk RB, Halm B, Lee E, Yee LL. Dispensing home nebulizers for acute wheezing from the hospital is cost-effective. *Am J Emerg Med* 2000;18(2):164–167.

Yamaya M, Sekizawa K, Ishizuka S, Monma M, Sasaki H, Yamara M. Exhaled carbon monoxide levels during treatment of acute asthma. *Eur Respir J* 1999;13(4):757–760.

Yigla M, Tov N, Solomonov A, Rubin AH, Harlev D. Difficult-to-control asthma and obstructive sleep apnea. *J Asthma* 2003;40(8):865–871.

Yildirim Z, Ozlu T, Bulbul Y, Bayram H. Addition of montelukast versus double dose of inhaled budesonide in moderate persistent asthma. *Respirology* 2004;9(2):243–248.

Yilmaz A, Akkaya E. Evaluation of long-term efficacy of an asthma education programme in an out-patient clinic. *Respir Med* 2002;96(7):519–524.

Yoos HL, Kitzman H, McMullen A, Henderson C, Sidora K. Symptom monitoring in childhood asthma: a randomized clinical trial comparing peak expiratory flow rate with symptom monitoring. *Ann Allergy Asthma Immunol* 2002;88(3):283–291.

Yoos HL, Kitzman H, McMullen A, Sidora K. Symptom perception in childhood asthma: how accurate are children and their parents? *J Asthma* 2003;40(1):27–39.

Young SY, Gunzenhauser JD, Malone KE, McTiernan A. Body mass index and asthma in the military population of the northwestern United States. *Arch Intern Med* 2001;161(13):1605–1611.

Yu TS, Wong TW, Wang XR, Song H, Wong SL, Tang JL. Adverse effects of low-level air pollution on the respiratory health of schoolchildren in Hong Kong. *J Occup Environ Med* 2001;43(4):310–316.

Yuksel H, Coskun S, Polat M, Onag A. Lower arrhythmogenic risk of low dose albuterol plus ipratropium. *Indian J Pediatr* 2001;68(10):945–949.

Yung M, South M. Randomised controlled trial of aminophylline for severe acute asthma. *Arch Dis Child* 1998;79(5):405–410.

Yurdakul AS, Calisir HC, Tunctan B, Ogretensoy M. Comparison of second controller medications in addition to inhaled corticosteroid in patients with moderate asthma. *Respir Med* 2002;96(5):322–329.

Yurdakul AS, Taci N, Eren A, Sipit T. Comparative efficacy of once-daily therapy with inhaled corticosteroid, leukotriene antagonist or sustained-release theophylline in patients with mild persistent asthma. *Respir Med* 2003;97(12):1313–1319.

Yurk RA, Diette GB, Skinner EA, Dominici F, Clark RD, Steinwachs DM, Wu AW. Predicting patient-reported asthma outcomes for adults in managed care. *Am J Manag Care* 2004;10(5):321–328.

Zacharasiewicz A, Wilson N, Lex C, Erin EM, Li AM, Hansel T, Khan M, Bush A. Clinical use of noninvasive measurements of airway inflammation in steroid reduction in children. *Am J Respir Crit Care Med* 2005;171(10):1077–1082.

Zainudin B. Steroid therapy in obstructive airway diseases. *Respirology* 1997;2(1):17–31.

Zainudin NM, Aziz BA, Haifa AL, Deng CT, Omar AH. Exercise-induced bronchoconstriction among Malay schoolchildren. *Respirology* 2001;6(2):151–155.

Zanconato S, Carraro S, Corradi M, Alinovi R, Pasquale MF, Piacentini G, Zucchello F, Baraldi E. Leukotrienes and 8-isoprostane in exhaled breath condensate of children with stable and unstable asthma. *J Allergy Clin Immunol* 2004;113(2):257–263.

Zarkovic JP, Marenk M, Valovirta E, Kuusela AL, Sandahl G, Persson B, Olsson H. One-year safety study with bambuterol once daily and terbutaline three times daily in 2–12-year-old children with asthma. The Bambuterol Multicentre Study Group. *Pediatr Pulmonol* 2000;29(6):424–429.

Zeiger RS, Baker JW, Kaplan MS, Pearlman DS, Schatz M, Bird S, Hustad C, Edelman J. Variability of symptoms in mild persistent asthma: baseline data from the MIAMI study. *Respir Med* 2004;98(9):898–905.

Zeiger RS, Bird SR, Kaplan MS, Schatz M, Pearlman DS, Orav EJ, Hustad CM, Edelman JM. Short-term and long-term asthma control in patients with mild persistent asthma receiving montelukast or fluticasone: a randomized controlled trial. *Am J Med* 2005;118(6):649–657.

Zeiger RS, Szeffler SJ, Phillips BR, Schatz M, Martinez FD, Chinchilli VM, Lemanske RF Jr, Strunk RC, Larsen G, Spahn JD, et al.; Childhood Asthma Research and Education Network of the National Heart, Lung, and Blood Institute. Response profiles to fluticasone and montelukast in mild-to-moderate persistent childhood asthma. *J Allergy Clin Immunol* 2006;117(1):45–52.

Zeitoun M, Wilk B, Matsuzaka A, Knopfli BH, Wilson BA, Bar-Or O. Facial cooling enhances exercise-induced bronchoconstriction in asthmatic children. *Med Sci Sports Exerc* 2004;36(5):767–771.

Zervas E, Papatheodorou G, Psathakis K, Panagou P, Georgatou N, Loukides S. Reduced intracellular Mg concentrations in patients with acute asthma. *Chest* 2003;123(1):113–118.

Zetterstrom O, Buhl R, Mellem H, Perpina M, Hedman J, O'Neill S, Ekstrom T. Improved asthma control with budesonide/formoterol in a single inhaler, compared with budesonide alone. *Eur Respir J* 2001;18(2):262–268.

Zhang J, Yu C, Holgate ST, Reiss TF. Variability and lack of predictive ability of asthma end-points in clinical trials. *Eur Respir J* 2002;20(5):1102–1109.

Zimmerman JL, Woodruff PG, Clark S, Camargo CA. Relation between phase of menstrual cycle and emergency department visits for acute asthma. *Am J Respir Crit Care Med* 2000;162(2 Pt 1):512–515.

Zimmermann T, Gulyas A, Bauer CP, Steinkamp G, Trautmann M. Salmeterol versus sodium cromoglycate for the protection of exercise induced asthma in children—a randomised cross-over study. *Eur J Med Res* 2003;8(9):428–434.

Zock JP, Jarvis D, Luczynska C, Sunyer J, Burney P. Housing characteristics, reported mold exposure, and asthma in the European Community Respiratory Health Survey. *J Allergy Clin Immunol* 2002;110(2):285–292.

Zorc JJ, Pusic MV, Ogborn CJ, Lebet R, Duggan AK. Ipratropium bromide added to asthma treatment in the pediatric emergency department. *Pediatrics* 1999;103(4 Pt 1):748–752.

Zorc JJ, Scarfone RJ, Li Y, Hong T, Harmelin M, Grunstein L, Andre JB. Scheduled follow-up after a pediatric emergency department visit for asthma: a randomized trial. *Pediatrics* 2003;111(3):495–502.

Zureik M, Neukirch C, Leynaert B, Liard R, Bousquet J, Neukirch F. Sensitisation to airborne moulds and severity of asthma: cross sectional study from European Community respiratory health survey. *BMJ* 2002;325(7361):411–414.